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Wire Basket Extraction of Foreign Bodies from
the Tracheobronchial Tree of Small Children
Relationship of Estrogen and Adenocarcinoma
of the Endometrium
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January 1981
Volume 79
Number 1

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FEB 9 - 1981

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The Journal Of The Kentucky Medical Association

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half-life

Just one built-in advantage

Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough

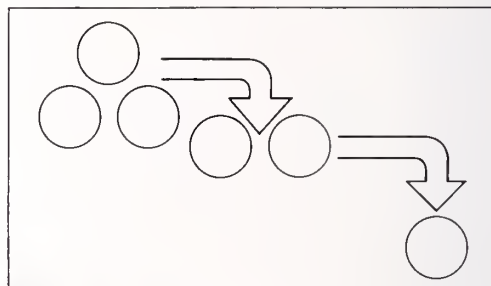
Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for

the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation

When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



*in the management of
symptoms of anxiety*

Valium®
diazepam/Roche
2-mg, 5-mg, 10-mg scored tablets

*effective therapy through
efficient pharmacodynamics*

Before prescribing, please see summary of product information on next page



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, atetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Postgraduate Opportunities

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- 5-7 Fiberoptic Bronchoscopy: A Workshop, Hyatt Regency Hotel, Lexington
- 11 Ethics, Confidentiality and Child Abuse, Norton Children's Hospitals, Louisville
- 15-20 12th Family Medicine Review-Session I, Hyatt Regency Hotel, Lexington
- 18 Sexually Abused Children: Setting and Sociodemographic Characteristics, Norton Children's Hospitals, Louisville
- 22-25 Southeastern Surgical Congress, Fairmont Hotel, New Orleans

MARCH

- 6-8 Advanced Cardiac Life Support, Provider/Instructor Course, Health Sciences Center, Louisville**
- 9-11 Nutrition in Pregnancy, Health Sciences Center, Louisville**
- 27-28 Nutrition and Cancer Update, Health Sciences Center, Louisville**
- 30-31 Medical Aspects of Sports Symposium, Hyatt Regency Hotel, Lexington

APRIL

- 3-4 Practical Approach to Ophthalmic Genetics, Hyatt Regency Hotel, Lexington*
- 10-11 Endocrinology for the Practicing Physician, Hyatt Regency Hotel, Lexington*
- 22-25 High Risk Pregnancy, Hyatt Regency Hotel, Louisville**

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329

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Starting, expanding or updating your practice?

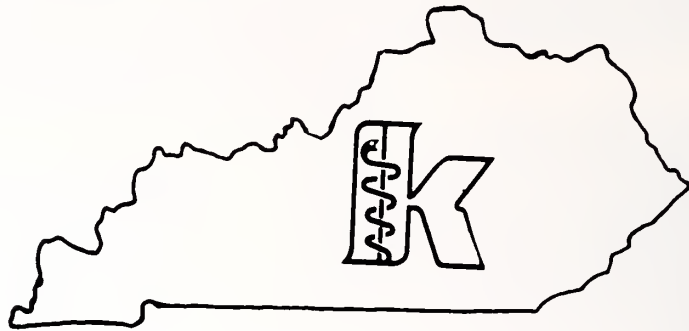
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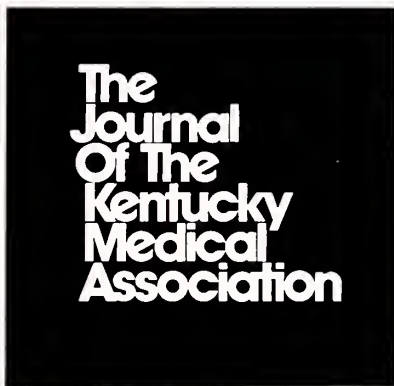
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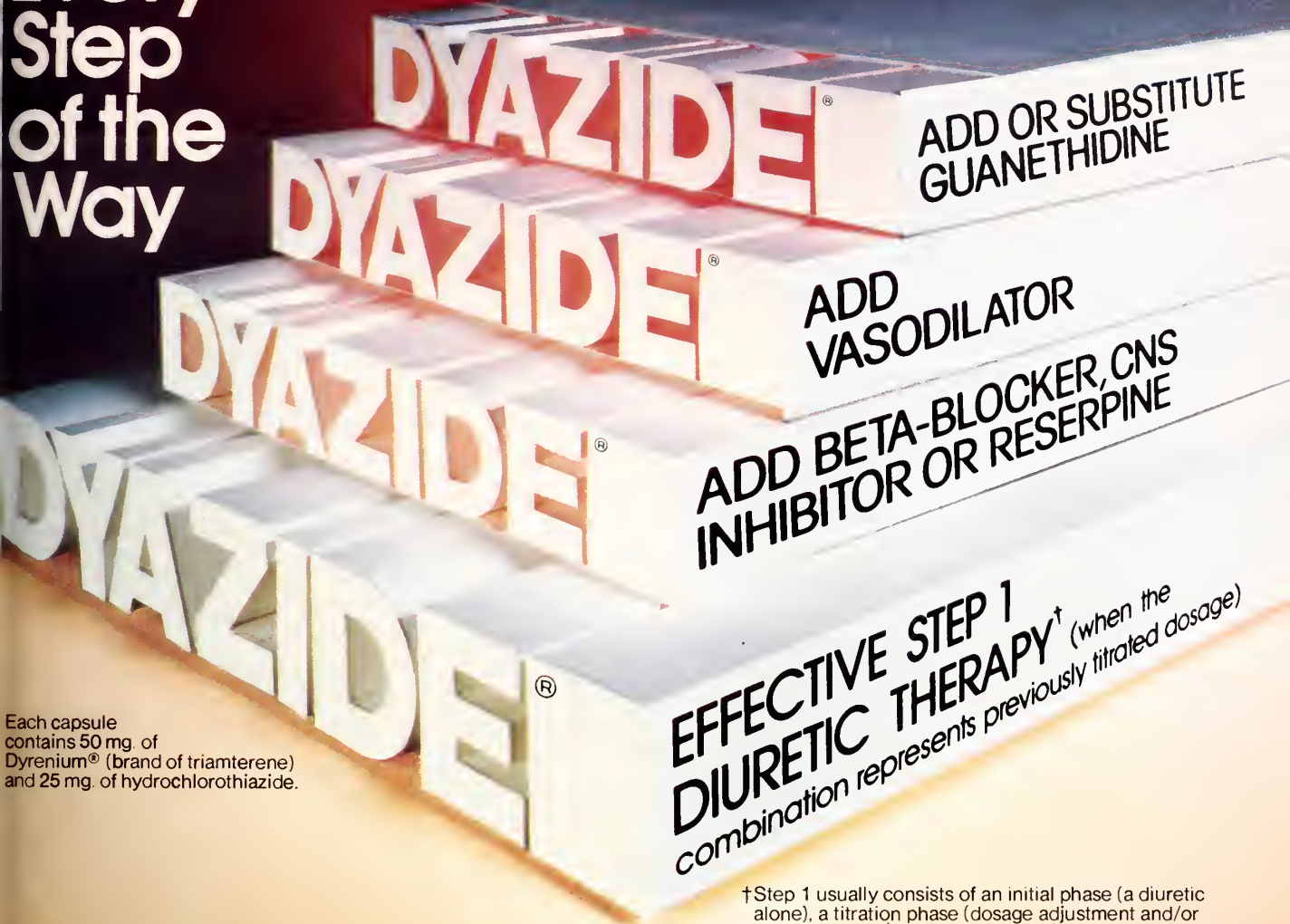
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In Hypertension*...When You Need to Conserve K⁺

Every Step of the Way



Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

EFFECTIVE STEP 1 DIURETIC THERAPY[†] (when the combination represents previously titrated dosage)

[†]Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent) and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, throm-

bocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with

possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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AN EXCEPTIONALLY FAVORABLE



You can expect rapid relief of a broad range of symptoms

With Limbitrol, patients often improve within a week. Not only is insomnia relieved, but you will often see early relief of agitation, psychic and somatic anxiety, anorexia and feelings of guilt or worthlessness. This early response encourages patients to stay in therapy.

You can minimize phenothiazine drawbacks

When you choose Limbitrol over a phenothiazine-containing product, you minimize the risk of tardive dyskinesia — now associated even with low dose, short-term phenothiazine therapy.^{1,2} You also reduce the possibility of other extrapyramidal side effects, which occur in approximately 30% of patients receiving phenothiazines.³⁻⁵ In contrast, the reported incidence of these disturbing reactions with Limbitrol or either of its compo-

nents alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Poulson GW. *NY State J Med* 79: 193-195, Feb 1979. 2. Hollister LE. Antipsychotic medications and the treatment of schizophrenia, chap. 9 in *Psychopharmacology: From Theory to Practice*, edited by Barchas et al. New York, Oxford University Press, 1979, pp 134, 145. 3. Domino EF. Antipsychotics: phenothiazines, thioxanthenes, butyrophenones and rauwolfia alkaloids, chap. 25 in *Drugs in Pharmacology in Medicine*, ed. 4, edited by DiPalmo JR. New York, McGraw Hill Book Company, 1971, p. 476. 4. Savner R. D.M. Extrapyramidal syndromes and other neurologic side effects of psychotropic drugs in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Klitman KF. New York, Raven Press, 1978, p. 1021. 5. Donlon PT, Slenson RL. *Dis Nerv Syst* 37: 629-635, Nov 1976.



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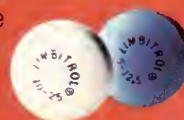


What
better reason
to choose
Limbitrol[®]
for your
patients with
moderate depression and anxiety?

Limbitrol[®] IV

Tablets 5-12.5 each containing 5 mg clordiazepoxide and 12.5 mg amitriptyline
(as the hydrochloride salt)

Tablets 10-25 each containing 10 mg clordiazepoxide and 25 mg amitriptyline
(as the hydrochloride salt)



Efficacy without a phenothiazine

Please see summary of product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Use in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated.

Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extropyrrolid symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Packs of 50.

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- ☐ Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- ☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

- ☐ An initial dosage of three tablets is recommended
- ☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary
- ☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- ☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness
- ☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom — insomnia
- ☐ Entire dosage h.s. to take maximum advantage of the sedative effect

Your guide to patient management... when you decide medication is needed

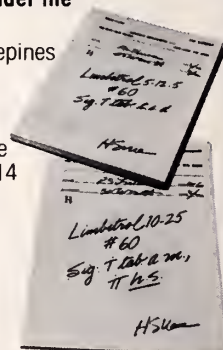
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

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PRESIDENT'S PAGE



AS usual we start the new year with great hope and anticipation of improvement in all things.

First, I wish to thank all members of the Kentucky Medical Association for their support in my election as President-Elect of your organization. Having spent most of my time during the last three years in the formation and activation of the Kentucky Medical Insurance Company I am glad to again be in the main stream of the Medical Association.

I notice, however, that many of our problems that we have now have been with us for several years. We continue to wrestle with them in an effort to improve the many perplexing government programs and try to make them better for our patients and more attractive to our members in order to enhance participation. Doctor Pitzer and the Medicaid Committee have had many meetings with the principals of the Kentucky Medicaid program in hope of helping them to improve their program, to institute cost containment and still provide adequate and necessary health care to the needy of Kentucky.

Hopefully, some of our problems on the national level will be lessened through the inauguration of President Reagan and his conservative minded Senate and House. However, we must not turn our heads and must pledge ourselves to aid his administration in every way possible to improve the health care to the people of the United States and to enhance cost containment and lessen abuse and waste in these programs.

I intend to give my full support and efforts to Doctor Pitzer this year and hopefully next year we will be able to continue the programs instituted by Doctor Howell and Doctor Pitzer that are fruitful to our organization.

I wish you all a very healthy, happy and prosperous new year.

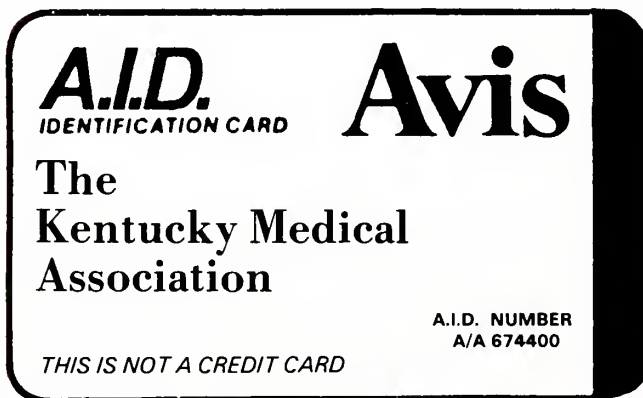
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Wire Basket Extraction of Foreign Bodies from the Tracheobronchial Tree of Small Children

KENTARO TSUEDA, M.D., STAFFAN SJOGREN, M.D., MARIA DEBRAND, M.D. and ANDREW R. PULITO, M.D.

THE aspiration of a bean or a peanut into the tracheobronchial tree may become a life-threatening emergency in small children. A complete or near complete obstruction of the trachea or the mainstem bronchus can develop rapidly, particularly when the aspirated materials possess a hygroscopic property. A prompt removal of the offending foreign body is, then, mandatory. Although various instruments^{1,2} have been used successfully for the purpose, some may offer an advantage over others under certain circumstances.

We report two pediatric patients in whom a rigid bronchoscope and a wire basket were used successfully to remove a bean from the trachea and a peanut from the right mainstem bronchus respectively. The first child was in dire respiratory distress.

Case Reports

Case 1. An 18-month-old girl choked suddenly while playing with pinto beans. The mother retrieved several beans from the child's mouth. After a period of observation, the child was brought to the clinic because of mild but persistent difficulty in breathing. The child had minimal inspiratory wheezes on arrival. She was admitted for an emergency bronchoscopy. During the preparation for the operating room, however, the respiratory distress exacerbated rapidly. There were marked stridors and suprasternal as well as substernal retractions. The breath sounds were distant and there were both inspiratory and expiratory wheezes over the entire lung fields. The child was diaphoretic and became unresponsive. The trachea was intubated but it was extremely difficult to achieve even a minimal air entry into the lung. Subcutaneous emphysema developed rapidly, the breath sounds disappeared and the chest became hyperinflated. Chest tubes were inserted bilaterally. The child was rushed to the operating room.

WIRE BASKET EXTRACTION—Tsueda et al

Although marked suprasternal, intercostal and substernal retractions continued to be present, there was no detectable airflow through the endotracheal tube. Squeezing the reservoir bag of the anesthetic circuit with both hands accomplished hardly any pulmonary ventilation. The child was paralyzed with 10 mg of succinylcholine intravenously. A 3 mm Storz bronchoscope* inserted into the trachea after removing the endotracheal tube revealed a large pinto bean lodged at the cricoid level. The bean was removed in whole by a basket stone retriever** inserted through the bronchoscope (Fig. 1). Marked resistance was encountered while the bean was extracted between the vocal cords. Attempts to ventilate the child with oxygen continued via the side arm of the bronchoscope throughout the maneuver. Bradycardia, which occurred during the procedure, was treated with repeated boluses of 0.02 mg of epinephrine. The trachea was re-intubated after the bean was extracted. The child was ventilated with ease manually. The specimen measured 1.5 x 1.0 x 0.5 cm.

The postoperative chest roentgenogram showed subcutaneous emphysema, pneumothorax, pneumomediastinum and pneumoperitoneum. The chest tubes were removed on the first postoperative day. The child was discharged home on the fifth postoperative day.

Case 2. A three-year-old girl developed a coughing spell, dyspnea and cyanosis while eating peanuts. The child coughed up fragments of a peanut when slapped on her back and the cyanosis cleared. Because of a recurrence of cyanosis and dyspnea, the child was brought to the clinic approximately 20 hours after the incident.

On admission, the child was in moderate respiratory distress. The respiratory rate was 36 per minute and the pulse rate was 140 per minute. The breath sounds were absent over the right chest. The chest roentgenogram revealed hyperinflated right lung with deviation of the mediastinal structures to the left, consistent with the obstruction of the right mainstem bronchus occurring during expiration (ball-valve effect). The

child was brought to the operating room for bronchoscopy.

Anesthesia was induced and maintained with halothane in oxygen. The child received 0.2 mg of atropine intravenously. Following 15 mg of succinylcholine intravenously a 4 mm Storz bronchoscope was inserted into the trachea. The child was ventilated via side arm with the same anesthetic mixture. A large fragment of a peanut located in the right mainstem bronchus just distal to the carina was removed, in whole, by a basket stone retriever inserted through the bronchoscope without difficulty. The specimen measured 0.5 x 0.7 cm. The postoperative course was uneventful. The child was discharged home on the first postoperative day.

Comment

The complications of bronchoscopic foreign body removal include the loss of the specimen in the subglottic area during recovery and the fragmentation of the foreign body. The consequences of these complications are more pronounced in small children because of the smaller diameter of their tracheobronchial tree and glottis. Recently a

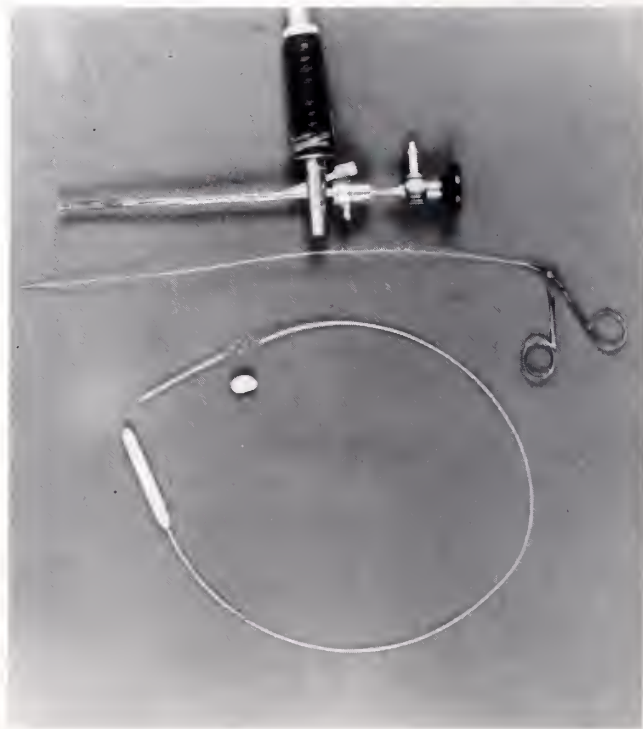


Fig. 1: A Storz bronchoscope, Pfister Schwartz stone retriever and the specimen.

*Karl Storz Endoscopy-America, Inc. Los Angeles, Ca 90048

**L. Mueller Division, American Hospital Supply Corp., Chicago, Ill. 60648

WIRE BASKET EXTRACTION—Tsueda et al

death was reported in a child during bronchoscopic removal of a peanut with a forceps. The peanut fragmented at the carina resulting in complete obstruction of both mainstem bronchi.³

Because of potential danger of such fragmentation, a forceps may not be an ideal instrument for the removal of a bulky organic object, *eg*, a bean and a peanut. The results of Zavaldá's animal study indicate that a wire basket is, perhaps, the best suited for this purpose.¹ Recently, however, a Fogarty catheter has been used with an equal success for the removal of a peanut from the tracheobronchial tree of small children.²

In a dire emergency in which complete airway obstruction threatens the very existence of life as occurred in our first child, the immediate removal of the offending foreign body is imperative for survival. With a wire basket, the aspirated pinto bean of our child was retrieved without difficulty.

Despite marked resistance encountered during its passage between the vocal cords, the specimen was not lost in the subglottic area and fragmentation did not occur. We believe a wire basket is a suitable instrument for the removal of an organic foreign body particularly under urgent circumstances. We recommend a wire basket to be included in the bronchoscopy tray for foreign body extraction.

Acknowledgment

DOCTOR SUZANNE S. ZEOK

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The Relationship of Estrogen and Adenocarcinoma of the Endometrium

Clinical and Histopathological Study of 107 Cases

HAROLD W. BAKER, M.D., LASZLO MAKK, M.D., ROBERT W. MORRISSEY, M.D. and HERBERT DICKSTEIN, M.D.

In order to decide if estrogens are etiologic in adenocarcinoma of the endometrium, 107 cases were analyzed. Twenty patients were estrogen users, four pre-menopausal and 16 post-menopausal. Endogenous estrogen was evident in seven post-menopausal patients. Sixty-four patients (60%) had atrophic genitalia. Grade 1 lesions had 29.6% estrogen users, grade 2, 5.1% and grade 3, 14.2%. Nine patients died of carcinoma, one having received estrogen and eight were atrophic. On the basis of this data estrogen might be suspect in grade 1 lesions but accurate controls are not obtainable. Death from endometrial carcinoma does not appear to be related to estrogen usage.

AN etiologic role in adenocarcinoma of the endometrium has been ascribed by several authors to estrogens, alone¹⁻⁶ and in combination with progestions in the form of birth control pills.⁷ The news media frequently warns the public of the increased danger of uterine cancer by taking estrogen. Patients and doctors are concerned. In order to assess the role of estrogen, this study was undertaken.

Materials and Methods

One hundred and seven consecutive patients diagnosed as having adenocarcinoma of the endometrium and treated by the senior author between 1955 and 1979 were studied.

The microscopic sections were submitted to three outside pathologists who had not seen the

sections previously. (They are the other authors of this paper.) These pathologists worked independently of each other and had no knowledge of the patient's identity or previous diagnosis, or which ones had received estrogens. After the study was completed, the cases were identified. Details of the pathological work and results of therapy in 65 cases were reported earlier.⁸

Results

The ages of the 107 patients varied from 29 to 83 years, with the average being 60.5 years. Parity was 0 in 38 cases (36%), one in 17 cases (16%) and > one in 52 cases (48%). Fourteen patients were virginal (13%). Twenty-four married women were nulliparous (22%). Eighty-seven patients were postmenopausal and 20 were premenopausal. The age of menopause was: 30-39 years in six cases, 40-44 years in seven cases, 45-49 years in 18 cases, 50-54 years in 37 cases and 55-57 years in seven cases. In 12 cases the age of menopause could not be determined.

From the Department of Obstetrics and Gynecology, Methodist Evangelical, Norton-Children's, Kentucky Baptist, Jewish and St. Anthony's Hospitals and the Department of Pathology, St. Anthony's Hospital, Louisville, KY

ADENOCARCINOMA—Baker et al

Surgical castration without estrogen replacement had been done in three cases 14, 17, and 18 years respectively prior to the diagnosis of endometrial carcinoma. Irradiation castration without estrogen replacement had been done in three cases, 22, 26, and 35 years respectively prior to the finding of adenocarcinoma.

Evidence of endogenous estrogen was evaluated by the appearance of the vulva, vagina and cervix and fresh suspensions of vaginal cells. Seventy-one postmenopausal women had received no estrogens. Of these, seven patients had estrogenized genitalia and 64 patients were atrophic. One theca cell tumor was found and no granulosa cell tumors. No cases of Stein-Leventhal syndrome were found.

Exogenous estrogen was being taken by 14 postmenopausal patients and two others had stopped the estrogen one and 1½ years respectively prior to the onset of bleeding but are included as estrogen users. Estrogen was being taken by four premenopausal patients. Of the 107 total patients 20 were considered estrogen users.

Duration of Estrogen Use

Three premenopausal patients had used oral estrogens for two months, one year and one year

respectively. The fourth patient had been on birth control pills for 1½ years.

The 16 postmenopausal patients had used estrogen for the following durations: two years one patient, three years five, four years one, five years two, six years one, eight years one, 10 years three and 13 years two patients. Oral estrogen had been taken by 14 patients and intramuscular estrogen by two patients.

Table 1 gives the stage and grade of endometrial carcinoma of all patients and of the 20 estrogen users. Table 2 gives the grade and estrogen usage.

Myometrial Invasion

There were 33 cases showing myometrial invasion in the hysterectomy specimens. Of these seven (21%) had taken estrogens. Only one patient who had received estrogen died of carcinoma. Her presenting lesion was a stage Ia grade 3 with deep myometrial invasion. As reported earlier by these authors there was a five year cure rate

Table 1

Endometrial Adenocarcinoma

Stage and Grade of 107 Patients and of 20 Estrogen Users

	No. of Patients	No. Using Estrogen	% Using Estrogen
Stage Ia			
Grade 1	32	10	31
Grade 2	15	0	0
Grade 3	4	1	25
Stage Ib			
Grade 1	22	6	27
Grade 2	23	2	8.7
Grade 3	7	1	14
Stage II			
Grade 2	1	0	0
Stage IV			
Grade 3	3	0	0
Total	107	20	18.7%

Table 2

Grade and Estrogen Use in Adenocarcinoma of the Endometrium

	No. of Patients	No. Using Estrogen	% Using Estrogen
Grade 1	54	16	29.6
Grade 2	39	2	5.1
Grade 3	14	2	14.2
Total	107	20	18.7

Table 3

Deaths from Endometrial Carcinoma by Stage, Grade and Estrogen Use

	No. of Patients	No. Using Estrogen	% Using Estrogen
Stage Ia Grade 3	1	1	100
Stage Ib Grade 2	1	0	0
Stage Ib Grade 3	4	0	0
Stage IV Grade 3	3	0	0
Total	9	1	11%

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of 91.7% in stage I cases treated with preoperative radium, and myometrial invasion was significant only when it was grade 3.⁸ Fifteen patients are known to have died of causes unrelated to the carcinoma; 10 of these were free of cancer beyond five years. Nine patients died of the adenocarcinoma. Table 3 shows the deaths by stage, grade and estrogen use.

Comment

Of 107 patients with adenocarcinoma of the endometrium 64 patients (60%) had received no estrogen and showed no evidence of endogenous estrogen. Twenty patients were estrogen users, 16 of whom were postmenopausal and four were premenopausal.

We believe it inaccurate to try to estimate the number of women on estrogens to use as controls for the present study. Most of the patients were referred because of the abnormal bleeding and there was no way to determine the estrogen prescribing practice of the referring physicians. Office records are frequently inaccurate because many patients we have found do not take the estrogen as prescribed. Any given patient needs to be followed her entire life before it can be stated whether she will or will not develop endometrial carcinoma.

It is of interest that 29.6% of grade 1 cases had taken estrogen as compared to 5% of grade 2 cases and 14% of grade 3 cases, but the number of grade 3 cases (14) is too small to be statistically significant. Nulliparity was noted in 35.5% of cases. Of the nine cancer deaths only one patient had received estrogen and eight showed no evidence of endogenous estrogen.

From this study there is no evidence to suggest a greatly increased risk of developing endometrial carcinoma by taking estrogen. It is quite clear that avoidance of estrogen and the development of clinical signs of estrogen deficiency such as atrophy of the genitalia in no way protects a woman from developing endometrial carcinoma, as evidenced by 60% of this series meeting this criteria.

The important point in our opinion is that any woman who develops abnormal bleeding whether she is estrogenized or not should have prompt dilatation and curettage and biopsies of the cervix.

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Fumigated Mail

MORRIS M. WEISS, M.D.

THE fumigation of mail has been used in an attempt to prevent the transmission of infectious disease and to destroy the agents producing these epidemics. The procedures of disinfection have been used from the 15th century until well into the 20th century. Although some of the techniques used did truly disinfect the letters, so far as known, disease has not been spread by the postal route. The exact date this practice came into being has always been uncertain. It was first used against plague and several other infectious diseases but only in the 19th century on an extensive scale against cholera. It can be assumed that the diseases against which disinfection of mail was practiced were plague, classical spotted fever (typhus), typhoid fever, smallpox, yellow fever and cholera. Long before the causes of these epidemics were individually identified, the dangers of dissemination of infection were understood.¹ To minimize the spread of plague, Venice and Genoa prohibited access to all those infected or under suspicion of being infected. The Ordinance of Visconte Bernado of Reggio near Modena, issued in 1374, must be considered the forerunner of the official decrees which, during the next 500 years, brought into being a complicated and rather fantastic system of protective measures against contagion. Many of the procedures were sound on the basis of what was known at the time but made meaningless by later developments in bacteriology. Ragusa in Dalmatia, in 1377, on the eastern shore of the Adriatic first detained all persons coming from an infected area at a point distant from the city for 30 days (trentina). This period was soon found too short and was extended to 40 days (quaranta giorni), hence the word quarantine. For the first time it was enforced in Marseilles in 1383. Venice was far ahead of all other cities in its control of sanitation and it created, in 1438, the Provveditori della

Salute della Terra (Supervisors of the Health of the Land) under its Magistracy of Health and endowed with large powers specified by a sanitary code. Ships and men were detailed, cargo was unloaded in lazarettas and susceptible articles were fumigated.²

In the 18th and 19th centuries not only ports but land frontier stations along with port and trade routes served as the barriers against the spread of epidemics. At these quarantine stations persons, merchandise, goods and mail were detailed, isolated and decontaminated according to the regulations enforced at that time. Thus, the intriguing practice of fumigation of letters was instituted throughout Europe and was continued for nearly 350 years. All the sovereign states of Europe adopted precautionary measures against transmission of plague through the mail. Detailed information is often quite meager. Much information has been accumulated by the study of the government documents describing the procedures to be used and from many covers that were available showing various marks, stamps, seals and evidence of chemical stains.

Fumigation of mail then began in Venice and certain European states in the 15th century and by the early part of the 17th century, it comes into fairly general use throughout Central and Southern Europe. It can be divided into four periods: The early period (1485-1730), the interim period (1730-1830), the later or cholera period (1830-1890) during the second pandemic of cholera, beginning in 1830 with the appearance of the disease in Central Europe, and the recent period (1890-1957). Its use lessened considerably after 1850, and from 1884 was discontinued as a general practice by most European countries. It was still in use in Chili in 1887. In isolated outbreaks, such as yellow fever in Louisiana and Florida, of plague in San Francisco and Honolulu (1900), Tunis (1929) and Suez (1943) of typhus at Tripolitania (1943), of cholera (1947) and of smallpox in the U.S.A. (1902), either the mail was

Condensed from a paper presented Feb. 12, 1980, to the Innominate Society, Louisville, KY.

FUMIGATED MAIL—Weiss

disinfected before it left the epidemic area or it was disinfected at the port of entry or in transit.

In general, the development of disinfection progressed from a simple superficial procedure to one of greater complexity and thoroughness. At first only the outside of the pieces was treated, and only with the simplest solution—water or vinegar. This was changed according to knowledge acquired in later times, and eventually both the outside and inside were treated with fumes or solutions that could actually destroy microorganisms. It is easy to understand why this ineffective means of disease control was pursued when one realizes that only in the last 100 years have the mysteries of contagion been largely dispelled.

As early as biblical times, the concept of contagion and transmission of diseases through contact was developing and by the 15th century principles of quarantine were being adopted, developed and enforced. Segregation of lepers was practiced as early as 736. In the 11th century, leprosy spread throughout Europe and installations were developed for those poor unfortunate victims to be segregated from society. In Italy, they became known as *lazeretti*.³ Thus, the general term, *lazaretto*, developed. During the 15th century while Black Death raged, these installations served as quarantine stations for merchants and travelers coming from regions where plague

had been recognized. The first such station to be used for handling plague was in Venice. Venice was followed by other maritime cities in the development of lazarettos to quarantine merchant mariners suspected of being infected.

Throughout history, epidemic diseases invaded Europe from east to west. The people of Central Europe were terrified by these plagues and attempts were made to confine them to Turkey, Russia and the Balkans. Thus, land frontier disinfection stations, many of them small and many of them operating for only short periods, were installed in those countries whose borders faced the east. A few of the instruments and equipment used for fumigation have survived and are preserved in the major museums of Europe. These include the tongs, forceps and pincers used to handle the letters being dipped or placed in the fumigation box. An instrument called a *rastel* consisting of two metal plates hinged together at one end was used extensively in the German States. The lower surface of the plate was provided with sharp projections and when the plates were brought together, the upper projections fitted into a number of slits on the upper surface of the lower plate. The letter was placed between the plates of the *rastel* and when these were brought together they produced a variable number of small or large coarse punch holes or perforations in the paper. The letter was then exposed to various chemicals, either liquid or vaporous. In the



Printed Document. 1769 Health Certificate For Travellers in a quarantine area.



Ship Letter 1831. Disinfection Slits And Punch Holes With Chemical Staining

FUMIGATED MAIL—Weiss

lazarettos where traffic was heavy and the mail volume great, fumigation boxes were developed. These were capable of fumigating large numbers of letters simultaneously with various mixtures of sulfur, saltpeter, and wheaten bran. By the mid 19th century, some of these devices were quite sophisticated and involved an installation made of copper and steel which could generate fumes of carbolic acid saturated with steam.

Students of fumigated mail find the regulations enforced at quarantine stations of great interest when they deal with the cleansing or purifying of letters. Probably the most common method used after the latter part of the 15th century was sprinkling the letter with vinegar or actually immersing it in a bucket of water or vinegar. Vinegar immersion was frequently followed by smoking or fumigation. The smoke from straw, burning tobacco, sulphur, steam from charcoal fires, evaporation of camphorated vinegars and smoke from pitch or gun powder all seem to have been used at one time or another. Perfuming of letters included the use of juniper berries, fragrant gums, resins, incense, myrrh, benzoin, resinous woods, leaves of fragrant herbs, aromatic vegetable substances to which mineral ingredients were added. The problem was to disinfect the letters without damaging them, a solution not always found judging from the appearance of the letters available for study. A mixture of sulphur, saltpeter, and wheaten bran was used extensively throughout the German States. A composition of fumigation powder rewritten in present day pharmaceutical terminology is:⁴

Rp. Natri nitric (sodium nitrate saltpeter), one pound
Sulfur sublimed (sulfur in fine), two pounds
Herb millefolium (yarrow, old man's pepper)
Succin (ambergris) aa pounds
Fruct. lauri (bay laurel leaves)
Herb absinthii (absinth, wormwood), 9 s
M. f. plv. grossus (prepare large powder)
D. S. Fumigation powder to be used by post offices that may be taken by the

postmaster or postal employee to a neighborhood pharmacy or may be prescribed.

The first quarantine in the Western Hemisphere was carried out in Santo Domingo in 1520. As an aftermath of tremendous smallpox epidemics, a notary public visited all arriving ships to determine whether any sick people were on board and to forbid their landing. Well passengers were placed under observation for four or five days. The mail was fumigated using the procedures developed in Europe.

In the North American colonies, the first sanitary legislation was the enactment in March 1648 by the General Court of Massachusetts Bay of a statute providing for maritime quarantine because of the prevalence of disease in the West Indies. Whenever smallpox appeared, inland quarantine or "internal hygiene" in contrast to maritime quarantine or "external hygiene" was usually adopted but was rarely effective. Disinfection was held to be the sheet anchor of prevention and fumigation was supposed to disinfect. It was held in high esteem and the Boston regulations of 1678 and the Rhode Island of 1712 made disinfection of foreign goods compulsory. One very effective method was exposure to the sun for at least six days. However, the popular method of disinfection used for 2000 years or more was fumigation by sulphur. During the 18th century, smoke houses were built at ferries and other places where travelers and their goods might be fumigated with sulphur, tar or other similar materials.

In the United States the only known fumigation of mail to prevent yellow fever was limited to New Orleans during the period of 1822-49. During Colonial days, even until 1878, quarantine functions in the United States were in the hands of the state and local authorities. The action taken is fully documented by disinfected letters. Most likely the principles and procedures had their origins in France. The people of New Orleans demanded disinfection of mail while yellow fever raged in the city. The mode of spread was unknown but since it occurred in one city after another, yellow fever was considered contagious and exportable. In order to plug this supposed

FUMIGATED MAIL—Weiss

mode of dissemination, the punching and fumigation of mail came into use shortly after the establishment of the first Board of Health and continued from 1822 until 1849 in a manner similar to that employed in Europe. The letters, full of holes, were subjected to the fumes of dilute carbolic acid or sulphuric acid gas pumped into tight containers. Sometimes they used high temperature, bichloride of mercury and sulphur furnaces. Even a heating chamber was built for the disinfection of clothes, bedding, furniture, mail and other suspected articles. Prior to the Spanish-American War, letters mailed from the port cities of Mobile and Pensacola were punched with nail holes and fumigated by the postal authorities by using a wooden mallet struck with nails.

In 1889, the United States Postmaster in concert with the Surgeon General named the Railway Mail Service as the branch of his department to cooperate with medical authorities in the fumigation of all mail originating in Florida. A mail fumigation station jointly operated by the postal and health authorities was established on a siding three miles out of Waycross, Georgia. Later, stations were opened at Flomaton, Alabama, and LaVilla Junction, a Jacksonville suburb, at Chattahoochee, Live Oak and DuPont, Georgia. (5) The fumigation station was a standard box car provided by the Railroad Service and divided into two compartments. Shelves of wire netting were installed in the car and large iron kettles were placed under the shelves. All letters were perforated by means of a wooden paddle studded with nails and wrappers on newspapers were loosened. The mail was scattered loosely on the wire netting shelves and a quantity of sulphur in the iron kettles, ignited, and the car closed tightly. The sulphur was allowed to burn with the fumes rising through the mail for about six hours. When the car was opened the bundles of letters were re-assembled, the wrappers tied on the newspaper, and the mail taken in a locked car through Waycross. It was then dispatched to its destination under regular handling conditions. Finding disinfected U.S. letters is difficult. Fumigated covers are scarce because collectors did not recognize them for what they were. The stampless varieties were apparently destroyed. Later,

stamps were soaked off the covers and the cover discarded.

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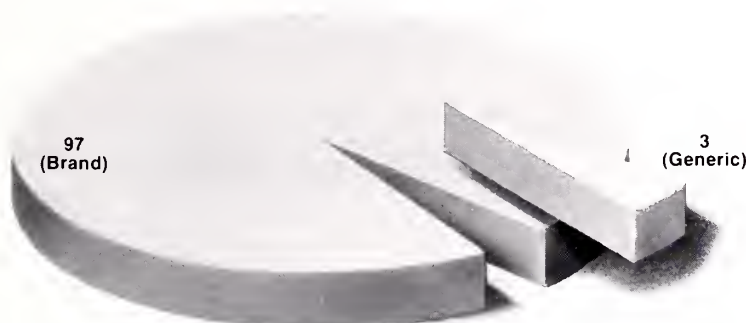
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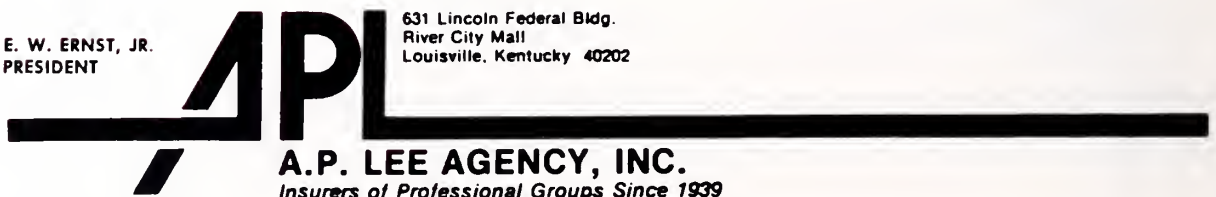
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Photochemotherapy (PUVA Therapy) for Psoriasis

Photochemotherapy is an outpatient form of treatment for severe psoriasis which has been in use in the United States for approximately six years. More commonly known by the acronym of PUVA, photochemotherapy involves taking a photosensitizing psoralen drug (8-methoxsalen) followed by exposure to the skin to high intensity long-wave ultraviolet light (UVA). This long-wave ultraviolet light (320 - 400nm) differs in its action from conventional midrange ultraviolet light or UVB (290-320 nm) which is used with tar derivatives with the Goeckermann treatment regimen.

The UVA source used in PUVA treatment consists of a box or chamber in which the patient stands, the walls of which are lined by bulbs. Treatment time in the unit is initially based on the patient's skin type with regard to his pigmentation and his tolerance of ordinary sunlight. Treatment times are gradually increased as tolerance to the light is achieved. In general, approximately 18 to 24 treatments given at a frequency of two or three treatments a week are required to obtain clearance of psoriasis. Once clearance is obtained, the frequency of treatment is gradually tapered. Some patients remain free of clinical psoriasis without the need for maintenance treatments for months after initial clearance, while others require maintenance treatments once every several weeks.

Painful erythema is the major side effect that can interrupt the course of PUVA treatment but with careful dosimetry this is very rare. In spite of the fact that psoralen drugs and natural sunlight have been used for greater than 20 years for treatment of other dermatoses such as vitiligo, and no significant long-term side effects have been noted, concern for potential long-term side effects from PUVA is raised because of the nature of psoralen—UVA interaction with DNA and because

of data obtained from experimental animals. Animal studies have demonstrated that in animals receiving PUVA without eye protection, cataracts may develop. It is for this reason that patients being treated with PUVA wear special goggles while receiving their treatment in the UVA unit and are required to wear special sunglasses while they are outdoors on the days on which they take their psoralen medication and receive their treatment. Experimental animals have also been noted to develop cumulative "actinic" skin damage and skin cancer after receiving a large amount of UVA. In humans treated with PUVA, there has been noted to be a higher than statistically expected incidence of localized skin cancers in patients with a history of previous skin cancer or in those patients who had been treated for psoriasis with other forms of ionizing radiation (x-ray or grenz-ray).⁴ In these patients, squamous cell carcinomas were present in a higher incidence than basal cell carcinomas in comparison to the general population.

Certain guidelines should be followed in the selection of patients for PUVA treatment.³ In general, a candidate for treatment should have 30% or more of the cutaneous surface involved with psoriasis or his psoriasis should be disabling physically, emotionally or economically (as in the case of psoriasis of the palms and soles). Candidates should be over 18 years of age. PUVA should not be used before other more conventional forms of treatment have been tried and found to be unsuccessful. Patients with a history of epithelial skin cancer (basal cell carcinoma or squamous cell carcinoma) or of light-aggravated or induced diseases such as lupus erythematosus or porphyria cutanea tarda cannot be treated. Likewise patients who are pregnant, who have bullous diseases of the skin, a history or family history of malignant melanoma, cataracts or aphakia, significant cardiovascular disease (temperature in the PUVA unit is approximately 90 degrees), or diseases currently being treated with im-

munosuppressive drugs cannot be treated. When a patient is started on PUVA, other concomitant anti-psoriatic treatments must be temporarily ceased (e.g. chemotherapy.)

Prior to beginning treatment, a patient should be advised of the fact that this modality of treatment does not represent a cure of his disease and he should be advised that PUVA is currently still considered investigational.

In summary, PUVA is a very effective form of treatment for severe psoriasis which has not responded to conventional treatment modalities. Although it has been found to be generally safe with regard to short-term risks, the nature of long-term risks remain to be determined. For selected patients, whose lives are marred by the physical, emotional or economic consequences of severe psoriasis, PUVA can provide significant benefit.

Gabriel G. Gruber, M.D.



Fig. 1: PUVA unit—outside view



Fig. 2: PUVA unit—inside view



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Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings)

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdoses may produce convulsions and death

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole

HOW SUPPLIED

Bottles of 100 Tablets
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CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period

Children 6 to 12 years of age: 1/2 the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: 1/2 teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician

HOW SUPPLIED

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APPROACHES TO REVASCULARIZATION OF THE ISCHEMIC FOOT

Introduction

Ischemic disease of the lower extremities is a significant cause of morbidity and death in our increasingly elderly population. Revascularization of the distal lower extremity allows limb salvage and gives relief of severe claudication in carefully selected patients. This paper presents three cases that illustrate the value of the saphenous vein in revascularization procedures and explores alternatives to autogenous vein grafts when the saphenous vein is unavailable or unsuitable. The development and current status of other arterial substitutes is discussed.

REPORTS OF CASES

CASE 1: This 42-year-old black man developed disabling, intermittent claudication of the left calf in 1978. An arteriogram showed left superficial femoral artery occlusion and stenosis of the origin of the profunda femoral artery. A profundoplasty was performed and his symptoms resolved. After an episode of vigorous activity, he developed a cold, paresthetic, painful right foot. His brachial artery pressure was 180 mm Hg, while the right posterior tibial artery pressure was 30 mm Hg and the left was 50 mm Hg. An arteriogram disclosed a right superficial femoral artery occlusion, 90% stenosis of the right profunda femoris, and tri-

furcation occlusion, with reconstitution through collaterals to a posterior tibial vessel. (Figs. 1, 2) A profundoplasty was performed urgently and the patient had symptomatic improvement and an increase of his posterior tibial pressure to 90 mm Hg.

One week after discharge from the hospital, he again developed coldness and paresthesias of his right foot. He had pain at rest and a decrease of the posterior tibial pressure to 50 mm Hg. A saphenous vein bypass to the posterior tibial vessel from the common femoral artery was performed. His posterior tibial blood pressure was immediately raised to 160 mm Hg and his symptoms abated. The postoperative course was satisfactory, with moderate dependent edema of the right lower extremity that subsequently resolved.

Comment: This case demonstrates the utility of the saphenous vein graft which is the preferred conduit for distal vascular reconstructive procedures. The anastomosis, performed well below the knee, resulted in total relief of symptoms and salvaged his ischemic limb.

CASE 2: A 52-year-old black man had one-half block calf claudication of three months' duration. He had nocturnal pain in his second toe and his right lower extremity was pulseless with atrophic skin and early signs of ulceration of the second toe. Doppler pressures were unobtainable in the foot. An aorto-iliofemoral arteriogram showed adequate arterial inflow from the iliac system, but a 20 cm occluded segment of the right superficial

femoral artery, with faint reconstitution of the posterior tibial artery, was seen on delayed films. The deep femoral artery was open, but had significant stenosis at its origin. (Figs. 3, 4)

At operation, direct arterial pressure in the common femoral artery was 130 mm Hg with a decrease to 70 mm Hg in the profunda femoral artery. The profunda artery was opened and a profundoplasty performed with a Dacron patch graft. A distal bypass was performed because angiographic study indicated that the collateral vessels from the profunda femoris artery to the geniculate branches of the popliteal did not adequately supply the tissue below the knee. The saphenous vein was small and contained numerous varicosities, making it totally unsuitable for use as an arterial conduit. Therefore, a polytetrafluorethylene graft (PTFE-Goretex[®]) was used to bypass the common femoral artery to the posterior tibial artery below the knee.

The patient's foot warmed postoperatively, with a Doppler pressure of 60 mm Hg in the posterior tibial artery. The ulcer healed rapidly.



FIG 1: A total occlusion of the right superficial femoral artery is present with a near total stenosis of the trifurcation vessels (arrow).

Comment: This patient had an unsuitable vein for vascular conduit. The use of a synthetic graft material (in this case PTFE) was clearly a second choice, but enabled the patient to have a limb-salvage procedure performed.

Case 3: A 56-year-old man developed ischemic rest pain in his right foot 19 months after a coronary artery bypass graft. His femoral artery pulses were excellent, but distal pulses were absent on the right. The ankle/brachial ratio measured by Doppler was .23, indicating significant obstruction to arterial flow. An arteriogram showed good arterial inflow to the leg with a normal-appearing profunda femoral artery. The superficial femoral artery was completely occluded at the adductor canal. The popliteal artery reconstituted at the knee and had two-vessel run off, but only the posterior tibial artery was of good caliber. The popliteal artery appeared severely diseased.

Because the patient's saphenous vein had been used during coronary artery bypass, a com-



FIG 2: A delayed film of the lower leg disclosed a patent posterior tibial artery (arrow) that was suitable for revascularization.

mercially prepared glutaraldehyde-tanned umbilical vein was used to perform a femorotibial bypass 6 cm below the knee into an artery that was more pliable than the popliteal segment proximally. After the operation, the patient's ankle-brachial ratio increased to .71 and he is asymptomatic 12 months later.

Comment: This below-the-knee vascular reconstruction was performed using an umbilical vein graft. Some groups have been enthusiastic about its use for below-the-knee operations, but adequate multi-center trials with long-term follow-up are not available. It has worked well in the first year in this patient.

Discussion

The saphenous vein graft is clearly the material of choice for bypass reconstruction of the distal lower extremity vessels; the history of vein grafts is relatively short. Goyannes, working simultaneously with Carrel, in 1906 performed the first successful implant of a vein into the arterial sys-

tem in humans,¹ when he repaired a popliteal artery aneurysm by harvesting the adjacent popliteal vein and substituted it for the excised arterial segment. Kunlin,² of Paris, performed the first femoropopliteal bypass graft in 1948, using a 26 cm autogenous saphenous vein. The saphenous graft is a dependable conduit with a record of success that is well-documented for bypass in both above and below-the-knee vascular reconstructions. Several large series have demonstrated five-year patency rates of 45% to 63.8% of saphenous vein grafts in femoropopliteal reconstruction.^{3,4} The incidence of graft closure varies with the level of bypass (popliteal versus infrapopliteal) and the patency of run off vessels. However, there is an increasing number of patients whose saphenous veins are not available for harvesting. The frequency of coronary artery bypass grafting has lessened the availability of the saphenous vein for other purposes. Additionally, veins may be inadequate, have varicosities or previous venous thrombosis.⁵ Attempts to dilate veins of inadequate caliber result in intimal and



FIG 3: A high-grade stenosis was present at the origin of the deep femoral artery (arrow).



FIG 4: The superficial femoral artery was completely occluded. There were few collateral vessels from the femoral to the popliteal artery segment.

medial disruption and increases the likelihood of early graft closure.⁶

The use of a Sparks[®] mandril, in which a tube of collagen is fashioned with implantable rods, has largely been discontinued because of early graft failure. These grafts lacked the structural integrity necessary for long-term patency. Experimental work continues with this concept using various types of mesh materials to provide mechanical stability to the conduit that is created.⁷

The newest "natural" graft is the glutaraldehyde-tanned umbilical vein.^{8,9} It provides conduits that are non-viable, branchless, valveless, and uniform or tapered in diameter. There is little evidence of antigenicity and no mechanical problems with durability after implantation reported in the short term follow-up presently available. Clinical trials are very encouraging and it is claimed that limb salvage has been effected in patients whose limbs were otherwise unsalvageable because their saphenous veins were not available. Dardik⁸ reported 82 implants in 70 patients; two thirds of whom were diabetics and one half who had advanced cardiac disease. The series consisted of 40 femoropopliteal bypasses, of which 70% extended below the knee, and 42 femoral-tibial or perineal bypasses. The one-year patency rates were 84% and 75% respectively. Collected data for bypasses in 361 patients with three-year follow-up, indicate patency rates of 76.4%, 63.4% and 55.7% for the popliteal, tibial and perineal arteries respectively. Although glutaraldehyde-tanned umbilical vein is far from the perfect graft, there is continuing hope that it will be an acceptable substitute for the saphenous vein, especially in below-the-knee reconstructions.

TABLE

ALTERNATIVE CONDUITS TO SAPHENOUS VEIN

NATURAL

Arm veins-cephalic
Jugular vein
Autogenous artery
Mandril (Sparks)
Umbilical vein (Tanned)

SYNTHETIC OR HETEROGRAFTS

Bovine carotid artery
Dacron
Teflon
Expanded Teflon (PTFE)

Alternatives to Saphenous Vein

The available alternatives to saphenous veins for grafts are shown in Table 1. The relatively long list of materials that have been used suggests that no one material is completely satisfactory, and, in many cases, some of the choices listed have been found on long term follow-up to be completely unsatisfactory.

Natural Alternatives to Saphenous Vein

The cephalic and jugular veins have been used successfully for several types of vascular reconstruction, including coronary artery bypass grafting, H-type mesocaval shunts and peripheral vascular reconstruction.¹⁰ They seem to work well in these situations, but are not long enough to be used exclusively for revascularization of the lower extremity. Although there were initial encouraging results using a composite graft of Dacron and saphenous vein,¹ follow-up studies have not shown that the use of such composite grafts increases the long-term patency rate when compared to synthetic material alone.³

Autogenous artery is particularly useful for bridging short arterial defects in contaminated fields, where it seems more resistant to infection than synthetic material. We have successfully used hypogastric artery and brachial artery segments to bridge such defects in contaminated wounds, and Ehrenfield¹² has reported an extensive series with excellent results. However, inadequate length of arterial segments is a major deterrent to its use in elective lower extremity reconstruction.

Development of Synthetic Grafts

Attempts to develop synthetic vascular grafts began in the first decade of this century. Carrel in 1912 attempted to use glass and aluminum tubes lined with paraffin as a conduit for blood. These grafts were unsuccessful and no further efforts made until the 1940's, when grafts of vitallium, polyethylene, siliconized rubber and steel mesh tubes were developed. Hufnagel¹³ in 1947 reported limited success of methylmethacrylate tubes with highly polished inner surfaces.

A crucial contribution to the area of synthetic grafts came with Voorhees¹⁴ observation that Vinyon-N (nylon) from parachutes could be fashioned into an arterial graft. Voorhees reportedly

was given several large sheets of Vinyon after it had been developed for spinnakers on sail boats. When the material would not hold an aniline dye it was discarded. The first grafts used in humans were constructed on a simple sewing machine. After a short period of leakage, the inner surface of the cloth became coated with fibrin which created an acceptable blood-prosthetic interface. Nylon was soon found to be completely inadequate because it lost 85% of its tensile strength about 100 days after implantation. During the next several years, many synthetic materials were tried, but Dacron and Teflon consistently proved to be the most durable after implantation. These materials have proven adequate for aortic substitution, but not for distal reconstruction due to early thrombosis.

Choice of Graft Material

The fundamental factors that determine the desirability of various textiles for arterial grafting are porosity, flexibility and durability.¹⁵ Porosity is needed for incorporation by the host. Ingrowth of connective tissue will not take place if pores are below a critical size, apparently the larger the pores, the more effective the incorporation. Clearly larger pores present more difficulty with the clotting process, and balance between the need for blood clotting and tissue ingrowth must be obtained.

Flexibility is accomplished by crimping the fabric or by using elasticized yarn in the fabric. However, this variable assumes less importance since ingrowth of fibroblasts soon render the graft relatively inflexible.

Durability is clearly essential because it increases inertness; the graft which lasts longest will be the one that reacts least with tissues. However, tissue interaction is essential for healing and the long-term function of the graft. Teflon grafts, while inert, heal poorly and cause late anastomotic aneurysms.¹⁶ Expanded microporous polytetrafluoroethylene (Gore-tex[®]) or (Impragraft[®]) are nontextile materials that meet the requirements of porosity, flexibility and durability quite well.

Early studies¹⁷⁻²⁰ with PTFE showed patency rates similar to those of saphenous veins at follow-up periods up to three years. However, as follow up continued, there was often an abrupt clotting of these grafts between the third and fifth

years, apparently due to the proliferation of a dense neo-intima, especially at the distal anastomosis. There is some controversy about PTFE graft closure because it was often used on very poor risk patients with poor run off (as in our Case 1). This could make its results appear worse than expected because of unfair bias in case selection. Presently, a prospective multi-center study is underway using PTFE, glutaraldehyde-tanned umbilical vein and saphenous vein graft in an attempt to resolve this question. If saphenous vein is not available or is unsuitable for use, we prefer either PTFE or an umbilical vein graft.

Bovine grafts are prepared from carotid and brachial arteries reaped at slaughter. The grafts are glutaraldehyde-tanned and stored in alcohol for future use. After initial enthusiasm for bovine grafts, a survey of vascular surgeons conducted by Dale²¹ disclosed problems that included anastomotic aneurysms, early graft closure and increased infection rate with this heterograft, hastening its demise as a viable alternative for vascular reconstruction. It is still used preferentially by many groups who perform angio-access procedures for hemodialysis.

New Directions

The search for an ideal artificial vascular conduit will undoubtedly continue. Since the saphenous vein is occasionally unavailable, the goal of having a vascular graft that can be taken from the operating room shelf and instantly implanted is an appealing one. While a variety of synthetic materials are being evaluated in the experimental laboratory, one approach has been to seed prosthetic grafts with naturally derived endothelial cells that grow into a smooth neo-intima that may eliminate the complications of long-term thrombosis. Continued work and longer follow-up will determine whether this is a clinically viable alternative.

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Guidelines For Prescribing Of Controlled Substances

This is another in a series of articles published by the Board of Medical Licensure in an effort to give physicians in the state a better understanding of the work of the Board and to make physicians more aware of the laws and regulations governing the practice of medicine and osteopathy in the state.

In dealing with medical discipline, the Board has found that one area giving the practicing physician the most difficulty is in the prescribing of controlled substances.

The following guidelines have been prepared under the auspices of the Drug Enforcement Administration and the DEA/Practitioners Working Committee and approved by the American Medical Association.

The purpose of these guidelines is to provide and establish acceptable professional response to the demands of the Controlled Substances Act. The guidelines provide a common sense approach to encourage voluntary compliance by the prescribing physician.

General Guidelines

- Controlled substances have legitimate clinical usefulness and the physician should not hesitate to consider prescribing them when they are indicated for the comfort and well being of patients.
- Prescribing controlled substances for legitimate medical uses requires special caution because of their potential for abuse and dependence.
- Exercise good judgment in administering and prescribing controlled substances so that diversion to illicit use is avoided and the development of drug dependence is minimized or prevented.

- Guard against contributing to drug abuse through injudicious prescription writing practices, or by acquiescence to unwarranted demands of some patients.

- Each physician is asked to examine his/her individual prescribing practices to ensure that all prescription orders for controlled substances are written with caution.

- Make specific effort to ensure that multiple prescription orders are not being obtained by the patient from different prescribers.

Guidelines, Prescription Orders

The physician is granted through legal authority the right to prescribe medications that are necessary for the proper treatment of his/her patients. Prescribing is governed by laws and regulations which set minimum standards and requirements. These guidelines, tempered with good moral and ethical consideration, give guidance to going beyond the minimum requirements.

- The prescription order must be signed by the physician when it is written. The physician's name, address and DEA registration number and full name and address of the patient must be given when prescribing controlled substances.

- The written prescription order should be precise and distinctly legible to enhance exact and effective communications between prescriber and dispenser.

- The prescription order should indicate whether or not it may be renewed and, if so, the number of times or the duration such renewal is authorized.

Prescription orders for drugs in Schedules III, IV and V may be issued either orally or in writing and may be renewed if so authorized on the prescription order. However, the prescription order

may only be renewed up to five times within six months after the date of issue.

A written prescription order is required for drugs in Schedule II. The renewing of Schedule II prescription orders is prohibited. Controlled substances which are prescribed without indication for renewal cannot be renewed without authorization by the prescriber.

- Prescribe no greater quantity of a controlled substance than is needed until the next check-up.
- Try to make prescription orders alteration-proof.

When prescribing a controlled substance, write out the actual amount in addition to giving an Arabic number on Roman numerals in order to discourage alterations in written prescription orders.

Physicians are encouraged to consider placing a number of check-off boxes on their prescription blanks which show amounts within which the prescriber amount falls, *ie*, 1-25, 26-50, 51-100, over 100.

- Use a separate prescription blank for each controlled substance prescribed.
- The use of prescription blanks which are preprinted with the name of a proprietary prescription should be discouraged.
- When institutional prescription blanks are used, the physician should print his/her name, address, and DEA registration number on such blanks.

Institutions should discourage the use of institutional prescription blanks for prescribing controlled substances. The physician should use his/her own prescription blanks in such instances.

The physician has the responsibility to inform patients of the effects of the prescribed drugs consistent with good medical practice and professional judgment. The patient has a corresponding duty to comply with the prescriber's directions for use of the prescribed medication.

It is the hope of the Board these guidelines will assist physicians in his/her prescribing of controlled substances to his/her patients. If you have any questions concerning these guidelines, please let us hear from you.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, *i.e.*, more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, *e.g.* drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan[®] for (lorazepam) Anxiety

Dosage: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

How Supplied: 0.5, 1.0 and 2.0mg tablets.

Why one benzodiazepine and not another?

Are you concerned about long-acting metabolites? Many clinicians, as well as pharmacologists, are beginning to draw attention to this problem (see New England Journal of Medicine, April 5, 1979).

In contrast to some older benzodiazepines, Ativan (lorazepam) does not give rise to long-lasting active metabolites. As with all benzodiazepines, you should follow the usual precautions concerning co-administration with other CNS depressants and warn your patients against operating dangerous machinery and motor vehicles.

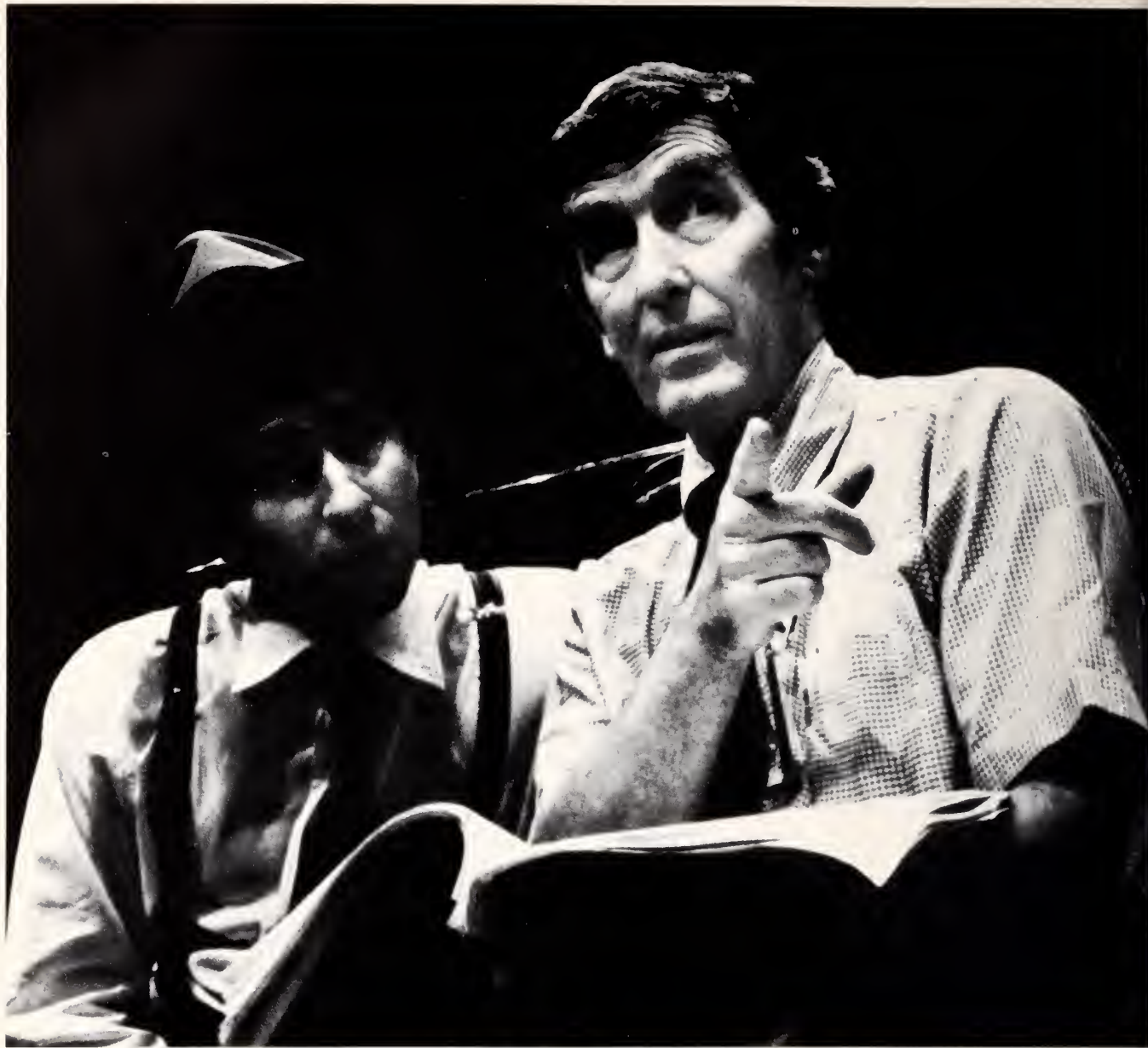
However, it is noteworthy that Ativan showed no clinical evidence of accumulation even when given in high doses over periods up to 6 months. The half-life of free lorazepam is about 12 hours; steady-state serum levels are attained in 2-3 days. Comparable data for diazepam: 20-50 hours and at least 7-10 days. (The pharmacokinetic profile of a drug can define such characteristics as absorption, distribution, metabolism and elimination but cannot, at present, be directly related to its therapeutic effectiveness.)

Ativan has a convenient b.i.d. or t.i.d. dosage schedule; it is compatible with a long list of other medications and, of course, it is a highly effective anxiolytic agent, as established in numerous nationwide, double-blind, controlled evaluations in thousands of patients.



See important information on preceding page.

Ativan[®]
for (lorazepam)
Anxiety



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"Getting involved is more than signing a pledge card once a year. It means giving some time.

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GREGORY FALLS

Home: Seattle, Washington

Career: Artistic Director

Interests: Drama, writing, travel and volunteering for United Way

sions to meet the community's human care needs.

"More than anything, United Way takes me out of the make-believe world I work in, into the drama of human life.

"Volunteering for United Way is more than what I ask of myself, it's what I owe myself . . . and my community."

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United Way



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NOT many days ago the writer happened to be in the Terminal of a great International Airport in Asia. As is usual, the builders had sought to pour their best into this National Gateway. Metals and marbles gleamed, arches soared, glass shimmered, lights sparkled and high above great beams supported, somehow, the massive roof that covered it all. I sat and waited and watched and chanced to see a man of 30 and a boy of 10; a father and son surely. From their dress they were peasants, not seemingly prepared to board a plane but, instead, there to see this, their nation's portal on the world.

What caught the eye more than their simple garb was their attitude of wonder. They walked slowly, unabashed, their faces alive and joyful with the experience of marveling at this edifice. The man's arm rested on the boy's shoulders, they spoke with quiet, intense animation, showing each other here a wonder, there a miracle. For them, in this moment that neither would forget, the terminal was theirs, theirs alone, as they filtered out the crowds scurrying by. There they pressed against a window to see the great airships poised for other continents. Here they risked a tentative foot onto an escalator, finally riding it up with vast satisfaction. I know, because I respectfully followed them about sensing things I'd forgotten, happily seeing again through their eyes, though understanding no word that they said.

Medical Gowns and medical Towns being what they are, it seems unlikely that I, of the Town, will be expected to pass wisdom to residents. This is, one supposes, inevitable, but if I were ever rationed out a session with residents I would remind them to wonder. Perhaps across a generation we could pause and wonder together, joyfully, as we are privileged to know, to listen and touch and see this marvel, our fellow humans, made most cunningly of protoplasm. And inside the protoplasm there is something else. "Soul," we will still call it and our inability to trap a soul, to define it, to measure it will make us wonder the more. Avoid, I would say, the exhaustion that dims perceptions, avoid preoccupation with technique alone, avoid the belief that any human can be completely understood. Let, I would say, amazement happen, take time for wonderment, share with others the incredible.

One can be, I would tell them, a doctor, a scientist, without knowing how to marvel. But if one would be also a physician, then one will be able to walk, marveling, through the echoing mysteries of the human experience. And we will be glad together.

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HAPPY 1981!! In your personal Voluntary Effort to contain costs, set an example for those around you as you adopt PRESCRIPTIONS FOR HEALTHIER LIVING in your SHAPE UP FOR LIFE program.

1. Unless contra-indicated by your Physician, you need a well-balanced diet of three meals a day. No FAD DIETS with "eat all you want while losing pounds." A good diet is made up of more natural grains, fiber foods and natural foods. We could all use less salt, sugar, refined foods and fewer animal proteins. Many people lose weight by having smaller portions along with an exercise program.

2. Adequate rest. Most people require six to eight hours sleep.

3. A physical fitness program, tailored to your needs, that will help maintain good musculoskeletal tone and also stress the cardio-vascular and respiratory systems. This activity should occur at least every other day.

4. No smoking. For some this is a very difficult one to adopt. This still remains as the #1 Risk Factor in Cardio-vascular disease and a contributing factor in Pulmonary disease.

5. Effective methods of coping with stress. Stress contributes to many physical symptoms we experience and some of it can be eliminated. Learn to live with the stresses that can't be changed. Don't set an example of having to resort to chemical methods to help you "feel good."

6. Consult your Physician for regular check-ups as recommended. See your Dentist. Also, as you practice good health habits, become involved in Auxiliary programs that are attempting to influence other people's lifestyles. We are especially concerned about our young and senior citizens. I know that you all know the above, but are you within 10 to 15 pounds of your recommended weight? Some of you may well be much under that as well as some that are above. You still need to exercise even if you are at proper weight.

REMEMBER this is THE YEAR OF THE DISABLED. As Physicians' spouses we are concerned about those physicians that are having difficulties and hope that they realize there is help available through KMA's committee on Physicians Medicine. This committee is concerned about the Physicians having problems with substance abuse or difficulty coping in their personal and professional lives.

Barbara Cox
AKMA President 1980-81

Gonorrhea Referral System For Private Medicine

Gonorrhea ranks second only to influenza-like illnesses as the most frequently reported communicable disease in the Commonwealth. Last fiscal year, 11,735 cases of gonorrhea were reported to the Bureau for Health Services for an incidence rate of 339.3 per 100,000 population. Public clinics diagnosed, treated, and reported 10,317 cases while private sources accounted for 1,418 cases. It is estimated that up to 30,000 more cases may have been seen but not reported by the private sector. Of the public cases, 7,863 or 76% were interviewed for sex contacts by trained public health personnel. From these interviews, 7,952 contacts were obtained and 6,586 or 83% were referred to medical supervision. Over 70% of those examined received therapeutic or preventive treatment.

Now, with the advent and widespread use of refined gonorrhea culture media, continuous up-dating of gonorrhea treatment regimens and increased federal funding in the public sector, higher priority is being given to reducing the incidence of gonorrhea.

Many states are utilizing new referral procedures for use by private physicians. Kentucky has developed a similar system which has been named CARE—**C**ontacts **A**lways **R**equire **E**xamination. The heart of this system is the private physician, who, after making a diagnosis of gonorrhea in either a male or female patient, simply presents the patient with a CARE Booklet and explains the need for all sex partners to be examined and treated. The booklet provides the patient with a clear choice of giving a tear-out referral card to their sex partners or they may choose to write in the contact's names and addresses so that either the physician or a trained public health worker can confidentially locate and refer the contacts to a private physician or a public clinic.

Physicians in specialties likely to treat gonorrhea patients will receive the CARE Booklet and specific instructions by mail or they will be delivered directly by a VD Control Unit staff member. Other physicians wishing to participate in this program may obtain a supply of the CARE booklets by writing to Venereal Disease Control Unit, Bureau for Health Services, 275 East Main Street, Frankfort, Kentucky 40621.

This program is endorsed by the KMA Board of Trustees and is being co-sponsored by the Kentucky Medical Association and the Kentucky Bureau for Health Services.

We strongly urge you to participate.

Frank R. Pitzer, M.D.
President
Kentucky Medical Association

David T. Allen, M.D., M.P.H.
Commissioner
Bureau for Health Services

Instructions

At the present time, male and female patients treated for gonorrhea in Kentucky public health clinics are provided with confidential sex contact interviews by public health nurses or specially trained venereal disease public health workers. Contacts elicited in this manner are then notified of their exposure by public health workers who strictly protect the confidentiality of the original patient. Arrangements are made for examination and prophylactic or preventive treatment of these contacts with private physicians or at public health clinics.

This system of direct epidemiology works very well. In FY 1980, over 6,000 gonorrhea contacts were notified and treated, thus preventing both reinfection of the original patient and continued spread of gonorrhea throughout the community.

Since many private physicians have little time and limited resources for sex partner follow-up, the Bureau for Health Services developed the CARE (**C**ontacts **A**lways **R**equire **E**xamination) system for use by private physicians. The CARE booklet, which is pocket size, is to be given to your infected patients. Besides providing them with basic information about gonorrhea, it gives them a clearly defined choice of two kinds of epidemiology.

Specifically, four tear-out referral cards are provided as part of each booklet for your patient to give to recent sex contacts. This card may then be brought to any private physician or one of the public health clinics. It will identify the bearer as a recent contact to gonorrhea, indicating the need for a full examination for both syphilis and gonorrhea. Prophylactic or preventive treatment should be administered immediately to each contact with a card.

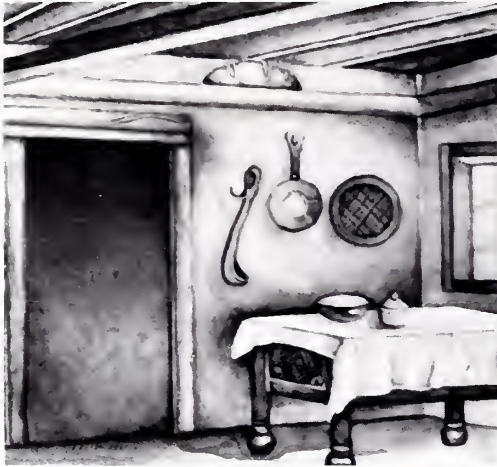
If your patient prefers to have a public health worker notify any or all of the contacts, he or she may simply complete the reverse side of the contact card and return it to you. By sending the completed card to the VD Control Unit, you will insure rapid and confidential follow-up of those contacts listed. The patient should be reported as a case of gonorrhea but need not be identified by name.

The CARE system is one additional weapon in the fight against gonorrhea. With your active support, it can play a meaningful role in the reduction of gonorrhea in Kentucky.

Additional information and CARE booklets may be obtained from the Venereal Disease Control Unit, Bureau for Health Services, 275 E. Main Street, Frankfort, Kentucky 40621 or call 502/564-4804.

Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.'



Today's Tradition: **Tegopen**[®] (cloxacillin sodium)

for the treatment* of
known or suspected
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infections such as:

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- Impetigo
- Secondarily infected dermatitis
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- Abscesses
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In serious, deep-seated
staph infections, 500 mg
q.i.d. dosage is
recommended.[†]

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.²
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.^{‡2}
- 88% of *S aureus* has been reported resistant to penicillins G and V.^{‡2}
- Staph resistance to erythromycin may develop during a course of therapy.³



Available as 500-mg and 250-mg capsules
and Oral Solution 125 mg/5 ml.

Tegopen[®] (cloxacillin sodium) Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on
an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

Tegopen®

(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information, consult Official Package Circular.
(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg q 6h.

Children: 50 mg /Kg /day in equally divided doses q 6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B. INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg /5 ml. in 100 ml. and 200 ml. bottles.

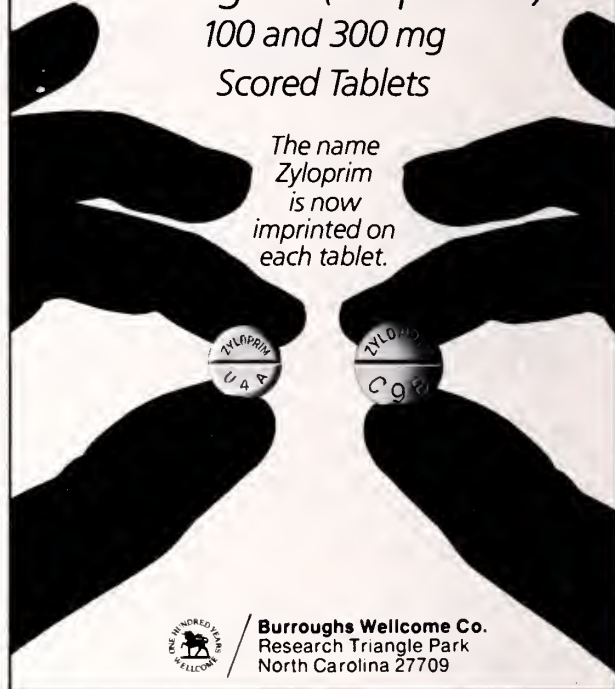
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100 and 300 mg
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In G.I. therapy



Adjunctive **Librax**[®]

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg cildinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax[®]

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or cildinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addic-

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.


ROCHE

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Manati, Puerto Rico 00701



**Acute pain
is no laughing matter.**

**The first prescription for
the first days of acute pain**
Empirin® \bar{c} Codeine #3


Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). 

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin \bar{c} Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin \bar{c} Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with... two tablets of Empirin \bar{c} Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming). 

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested as a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants.

WARNINGS:



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



Bob Schulman



April 1~2, 1981

Popular news critic columnist, Bob Schulman, veteran multi-media Newsmen, will be one of the outstanding speakers at the 1981 Synergy in Leadership Conference in April. Schulman is a former columnist for *Time*, *Life*, *Fortune* and *Sports Illustrated*, and has been a recipient of numerous national awards for his distinguished service in broadcast journalism and tv documentaries. Schulman's presentation will include an explanation of the public's right to know and will discuss media's responsibility to both the public and to the professions.



James M. Keelor



April 1~2, 1981

Former NBC Newsmen, James M. Keelor, President and General Manager of WAVE-TV 3, and recipient of numerous news awards, will participate in the panel discussion on "Point-Counterpoint" during the 1981 Synergy in Leadership Conference. Keelor will discuss medicine's responsibility to report on medical issues of public importance and methods by which physicians may obtain good professional relationships with the public and with the news media. James M. Keelor was a recipient of the Emmy from the National Academy of TV Arts and Sciences for his news program while serving with the NBC Cleveland Bureau.

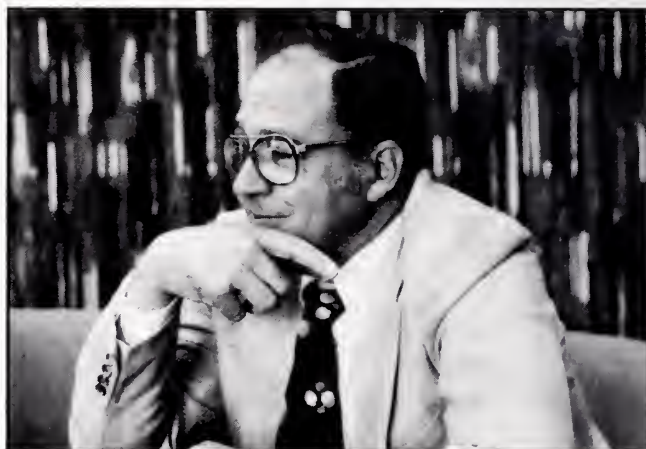
Dwight L. Blackburn, M.D.

CHAIRMEN of the Board are often depicted as dominant, power wielding leaders who dictate to their Boards rather than guide them in their decision making. Dwight L. Blackburn, M.D., doesn't fit into this stereotype at all as Chairman of the KMA Board of Trustees. In his soft-spoken manner, he deliberates carefully before answering pointed questions on controversial medical and political issues. He uses his influence sparingly with the Board and in his position as a spokesperson for KMA.

Doctor Blackburn has been a Family Practitioner in Berea, Ky. since 1960. As an undergraduate student he attended Berea College which is well-known for its special tuition program. Students do not pay any tuition but instead work 10 hours a week on campus in the job of their choice.

Doctor Blackburn graduated in 1955 from the University of Louisville School of Medicine and became active in organized medicine after joining the KMA in 1957. Before becoming KMA Trustee in 1975, he was President of the Madison County Medical Society for seven years. He is serving his second term as Trustee and became Vice Chairman of the KMA Board in 1978.

In his relationship with the Board, Doctor Blackburn feels that he should not take part in discussions, as a rule. "I think it's the duty of the Chairman to know what's involved in the issue,



to keep the discussion confined to that issue and not let the meeting get out of hand. If there are valid points to be made, the Chairman should surrender the chair and make them as a member of the Board," explains Doctor Blackburn.

The conduct of the KMA Board meetings allows expressions of individuality from each member, according to Doctor Blackburn. "No chairman or board member can be effective if he is there simply for personal benefit or because he has an ax to grind. Each member obviously has his own opinion and sometimes we have fairly heated discussions, but the strength of the KMA Board is its members' willingness and ability to work collectively to improve medicine."

"No chairman or board member can be effective if he is there simply for personal benefit or because he has an ax to grind."

Chairman of the Board

Recent issues facing the medical profession are complex and controversial. It is almost impossible to be knowledgeable in all areas, but Doctor Blackburn has proven his capability and is well-versed in explaining these issues.

Doctor Blackburn had the opportunity to express KMA's views when he appeared recently on two segments of the television show, "Kentucky Journal," seen on KET television. Grady Stumbo, M.D., Secretary of the Department for Human Resources, appeared on both programs with Doctor Blackburn. Medicaid was the topic during the first segment. Doctor Blackburn related concerns expressed by the House of Delegates which included traditional physician subsidization of the Program, lack of substantial physician input, practitioner participation, cumbersome paperwork problems and other items.

There had been speculation recently about a physician boycott of the Medicaid program. As a rural physician with approximately 30% of his practice coming from Medicaid patients, Doctor Blackburn doesn't believe that individual physicians or physicians as a group would boycott the Medicaid Program, particularly in rural areas where Medicaid is a major source of medical care. He sees the remote chance of physicians refusing to send in paperwork as a form of boycotting, but only on an individual basis.

The second "Journal" program highlighted the role of health departments in the state. Doctor Blackburn conveyed the position of the House of Delegates which opposes routinely establishing Primary Care Centers under the auspices of health departments. There is a fear that allied health personnel who would provide basic staff services should not be in a position where they may become inappropriately involved in direct diagnosis and treatment.

The views of KMA and the image of organized medicine are best expressed by using programs like "Kentucky Journal" and other media exposure, along with expansion in public relations. "By taking the initiative and contacting the public directly, instead of waiting for them to come to us, we can show them that physicians are just as concerned with health care problems as they are," Doctor Blackburn explains.

As a former recipient of the Rural Kentucky Medical Scholarship Fund (RKMSF), and as a rural physician, Doctor Blackburn knows what positive results can occur when organized medicine takes the initiative to improve a situation such as the physician shortage in Kentucky. "The Fund is one of the few effective ways to entice physicians to rural areas. This program should have absolute support by members of the KMA because it is one of our better programs," says Doctor Blackburn. "I am disappointed that enough resources are not available to expand to meet all the Fund's goals, but this does not diminish the success."

Golf is what keeps Doctor Blackburn occupied in his spare time. His only complaint is that he has never made a hole-in-one. His wife, Dorothy, shares this golfing enthusiasm and was the winner of last year's Auxiliary Benefit Golf Tournament in Madison County.



The Blackburns also share another interest, their four children. Their oldest son, Donald, lives in Lexington with his wife and three-year-old daughter. He owns a bowling and billiards store in Lexington. Their second son, Dennis, is a dental assistant in Berea, working on an advanced degree in computer science. Douglas, their third son, is a coal analyst in Pikeville and their daughter Deena, lives in Broomfield, Colorado, where she works for a women's clothing store.

Medicine has a much brighter future, according to Doctor Blackburn, because of the election of Ronald Reagan. "For the first time in 25 years we see the possibility of throwing the bureaucratic yoke off of our shoulders." Does he think that physicians are ready to face the challenges of making improvements in medicine based on their

own initiative? "We have to make changes," Doctor Blackburn says quickly. "Our opportunities to show the American public that we are interested in total care for all people, and setting up our own medical care system through the nation, are running short."



Text by Donna M. Young
Photos by Joseph A. Witherington, Jr.

The Southeastern Surgical Congress will be held at the Fairmont Hotel, New Orleans, February 22-25, 1981. For more information contact Southeastern Surgical Congress, 315 Boulevard, Atlanta, Georgia 30312.

Mesmerism—A Translation of the Original Medical and Scientific Writings of F.A. Mesmer

Translated by George J. Bloch, William Kaufmann, Inc., Copyright 1980, 152 pages

A review in this journal of a former heretic and medical outcast's writings is either a bold innovation or pure adventure. Nevertheless, to find the etymology of the word "mesmerize" and see that its origin was from one of our own physicians was an experience to be shared.

In the 17-18th century medical community this erstwhile physician, philosopher and scientist, Franz Anton Mesmer, had significant impact. From Austria to France and finally to Switzerland, this peripatetic virtuoso attracted much controversy and few but prolific followers. Whether modern hypnosis was born from his thinking is moot, but surely his writings were inherited by the fathers of current hypnotic practice. In addition, human biological rhythms and periodicities were introduced, although linked with atmospheric changes. Static electricity and magnetic forms were discussed, bridging the biological and physical sciences. Mesmer's work seemed catalytic, fostering a growing desire for medical intervention. Though magnets themselves were subsequently deserted for simple contact and spoken commands, his direct disciples discovered several basic elements (post-hypnotic amnesia and somnambulism) of current hypnosis.

Operative anesthesia was accomplished with magnetic sleep. His followers and society were called Magnetists. Suggestion could be transferred by movement of our "cerebral magnets." A magnetic "pass" would correlate with hypnotic suggestion.

Mesmer's writings have weathered the storm of peer pressure. They have been unearthed from beneath time, language and opinion barriers. The least lesson they bear is that today's heretic may be tomorrow's laureate, though probably not.

Current Obstetric & Gynecologic Diagnosis & Treatment

Ralph C. Benson, M.D., Lange Medical Publications, Copyright 1980, 1001 pages

The fact that this Lange series soft cover text is encyclopedic is both an asset and probably its albatross. I suspect that the author's intention to traverse territorial and language barriers demanded covering obstetrics and gynecology in a universal fashion.

The core of the book is standard. Initially the anatomy and embryology of the female urogenital system is presented with generous use of drawings and tables. Occasionally developmental landmarks get clouded by inserting clinical correlations which the amateur reader is supposed to somehow understand. The figures should be relegated a timetable to orient readers in the importance of time and coordination in embryology and development.

Formal gynecology follows with chapters in menstruation and disorders of the vulva, vagina, cervix, corpus, pelvic supports, oviducts and ovaries. The chapter on congenital malformations would be comfortably read in conjunction with the embryology discussed in the early book. Unfortunately, many of these chapters have inserted descriptions of surgical procedures which relate to the material but break the cadence of learning the disorders. Especially with a long chapter richly trimmed with illustrations, the surgical realm is not given short shrift. The frustration in reading this material is that few physicians could comfortably perform these operations with these descriptions alone, yet they do whet the appetite to read further.

Such appended chapters such as psychological aspects, marital counseling, legal problems, etc. are not worth their space, but for foreign consumption in an all inclusive text, they have a place.

The obstetrical sibling suffers no rivalry in this book. A generous portion of chapters, numerous illustrations, extensive tables and handy guides make the second half a learning crescendo. I resist reading chapters on antimicrobials, and other attempts at making treatments germane to the times. Chemotherapy has to be refreshed regularly and publication limitations condemn such chapters to irrelevance shortly.

The index is excellent but the miniscule print and thirty pages make it difficult to use.

I can see this book in the eager students pile and easily in the desperate extra-American medical communities. Stateside we have more complete obstetrics and gynecology references. The price is right, if the need is there.



Morton J. Marcus



Morton J. Marcus, one of the United States' leading young research economists, will highlight the Thursday morning program of the Synergy in Leadership Conference scheduled for April 2, 1981. Marcus has written and spoken extensively throughout the United States and is the Director of the Division of Research at Indiana University's School of Business. Mr. Marcus is editor of the *Indiana Business Review*.

Synergy in Leadership, April 1-2, 1981



Tom E. Nesbitt, M.D.



Tom E. Nesbitt, M.D., Past President of the American Medical Association and a practicing physician from Nashville, Tennessee, will keynote the 1981 Synergy in Leadership Conference on April 1, 1981, in Louisville.

Doctor Nesbitt, one of medicine's most outstanding spokesmen and nationally-known representative on numerous councils and committees, will focus on the need for physician participation in planning for today's complex medical and health problems. Doctor Nesbitt was a member of the controversial GMENAC Committee which recently released its report on future expectations of the physician population, specialties and medicine's needs for the future.

STATEMENT OF OWNERSHIP MANAGEMENT AND CIRCULATION

(Required by 39 U.S.C. 3626)

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- Nonprofit organizations authorized to mail at special rates: The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during the preceding 12 months.
- Extent and nature of circulation:

	Average no. copies each issue during preceding 12 months	Single issue Published nearest to filing date
A. Total no. copies printed:	3921	3975
B. Paid circulation:		
1. Sales through dealers and carriers, street vendors and counter sales:	0	0
2. Mail subscriptions:	3703	3774
C. Total paid circulation:	3703	3774
D. Free distribution by mail, carrier or other means:		
1. Samples, complimentary, and other free copies:	153	148
E. Total distribution:	3856	3922
F. Office use left-over, unaccounted, spoiled after printing:	65	53
G. Total:	3921	3975

How's Your Cost Consciousness?

JANUARY—Educate patients in health care cost—dispel the attitude that the most expensive is the best. Institute patient education aids—tapes, printed materials. Institute and encourage preventative health care programs—diet, exercise, smoking, drugs, alcohol, seat belts, motor-cycle helmets, environmental pollution, monitoring TV programs for children. Encourage patients to compare costs for family pharmacists and to discuss costs of drugs with them.

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae*

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (Integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacterio. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with cephalosporins. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

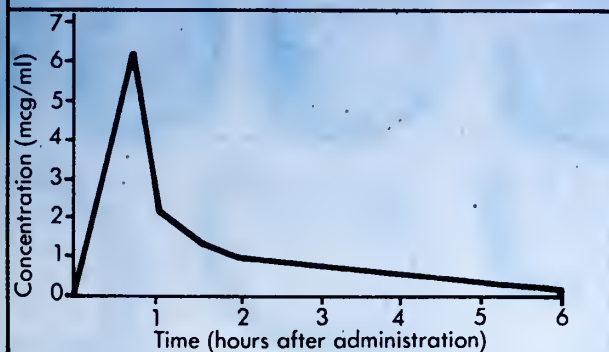
	ADULTS	CHILDREN*
INFECTION		
Respiratory Tract		
Tonsillitis and Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults. †depending on severity

Half the dose
is absorbed in 9 minutes!
compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T_{1/2} values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories • Philadelphia, Pa. 19101



Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

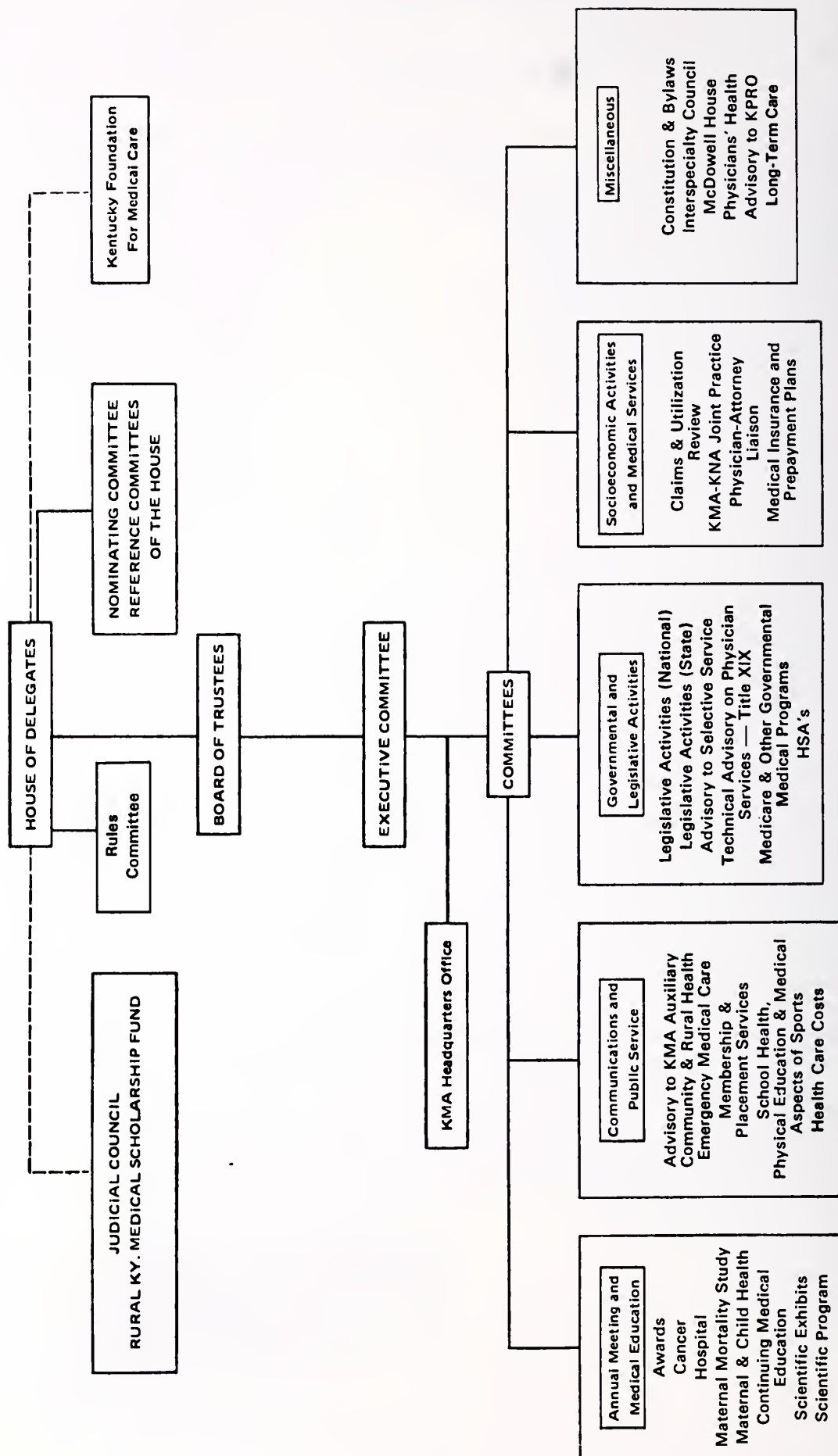
See important information on facing page.

CYCLAPEN®-W
(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW
NAME

KMA Organization Chart — Revised November 1980



Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These Physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

James E. Albritton, Mayfield
John Robert Allen, Lexington
John S. Ashworth, Ashland
Syed Gulam Badrudduja, Prestonsburg
Joseph Arthur Bassi, Paducah
Nicolas R. Birlew, Columbia
Dwight L. Blackburn, Berea
Stephen B. Burkhart, Salem
Robert D. Byrd, Owensboro
Jeffrey Phillip Callen, Louisville
William M. Carney, Elizabethtown
Delmas M. Clardy, Hopkinsville
Jose Manuel Cordero, West Liberty
Charles Edward Crase, Stanford
James R. Dade, Hopkinsville
Thomas Edward Egan, Fort Mitchell
George Estill, Maysville
Rachel Ramona Eubank, Harlan
Don H. Frickman, Highland Heights
John Wells Garden, Lexington
Gordon Lucius Green, Louisville
Darrell Lee Hallau, Covington
Harry David Heideman, Louisville
Jack Boyd Holt, Russellville
James Maurice Huey, Walton
Philip Joseph Hulsman, Louisville
Paul Stephen Kappes, Bellevue
Andrew T. Kim, Paducah
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- 1 New Year's Day, Office closed
- 8 Critical County Committee of RKMSF, Louisville
- 8 Ad Hoc Committee on Peer Review, Louisville
- 13 *Journal* Editors, Louisville
- 15 Board of Medical Licensure, Louisville
- 20 Allied Health CEO Conference, Louisville

FEBRUARY

- 9 *Journal* Editors, Louisville
- 12-15 AMA Leadership Conference, Chicago

MARCH

- 10 *Journal* Editors, Louisville
- 12 Budget Committee, Louisville
- 19 Executive Committee, Louisville

APRIL

- 1 Board of Trustees, Louisville
- 1-2 Synergy in Leadership Conference, Louisville

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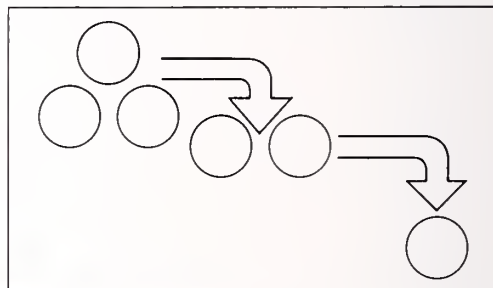
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- 11 Ethics, Confidentiality and Child Abuse, Norton Children's Hospitals, Louisville
- 15-20 12th Family Medicine Review-Session I, Hyatt Regency Hotel, Lexington
- 18 Sexually Abused Children: Setting and Sociodemographic Characteristics, Norton Children's Hospitals, Louisville

MARCH

- 9-11 Nutrition in Pregnancy, Health Sciences Center, Louisville**
- 13-14 Practical Management of Common Geriatric Problems, Rush-Presbyterian-St. Luke's Medical Center, Chicago
- 22-25 Southeastern Surgical Congress, Fairmont Hotel, New Orleans
- 27-28 Nutrition and Cancer Update, Health Sciences Center, Louisville**
- 30-31 Medical Aspects of Sports Symposium, Hyatt Regency Hotel, Lexington

APRIL

- 2 26th Annual Spring Clinical Conference, Lexington Clinic, Lexington
- 2-4 KY Ob-Gyn Society Spring Scientific Meeting, Hyatt Regency Hotel, Lexington
- 3-4 Practical Approach to Ophthalmic Genetics Hyatt Regency Hotel, Lexington*
- 10-11 Endocrinology for the Practicing Physician, Hyatt Regency Hotel, Lexington*
- 18 18th Annual Oropharyngeal Cancer Symposium, Health Sciences Center, Louisville
- 22-25 High Risk Pregnancy, Hyatt Regency Hotel, Louisville**

MAY

- 6-9 62nd Annual Meeting Virginia Society of Ophthalmology and Otolaryngology, Inc., Virginia Beach, VA
- 8 Pediatric Adolescent Gynecology, Executive West, Louisville**
- 21 Allergy Immunology, Hyatt Regency, Louisville**

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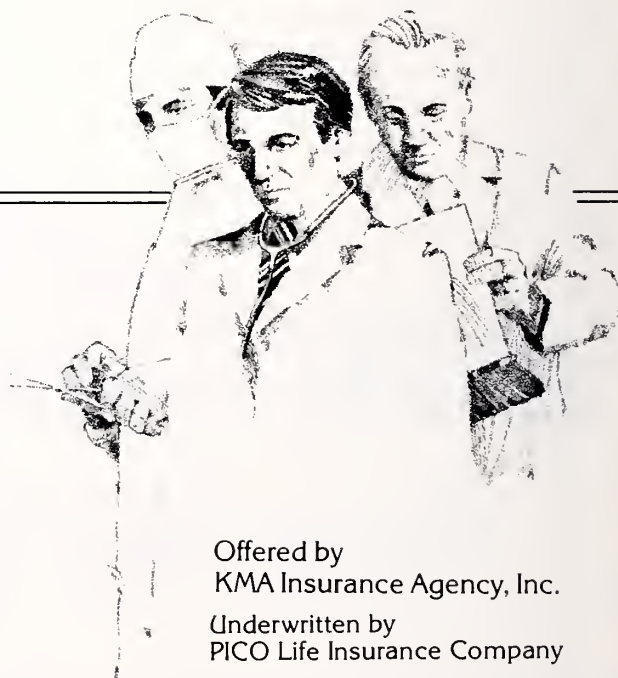
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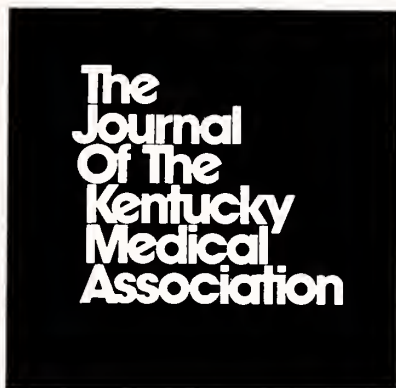


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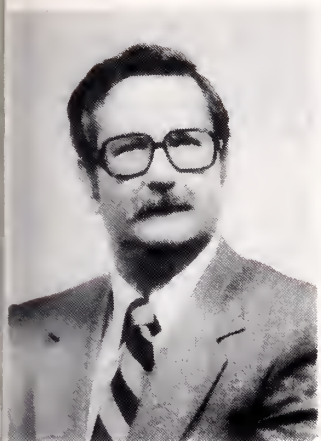
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PRESIDENT'S PAGE



In order for the Kentucky Medical Association to be successful and productive in its representation of Kentucky physicians, new and innovative approaches must be developed. In today's complex society many outside parties have and are still attempting to control and manipulate physicians and the practice of medicine. Organized medicine can no longer fight the battle of medicine alone and single-handedly. We must rely on our friends and allies in the business and professional community to assist us in our effort to maintain a free and independent practice of medicine.

The complexity of today's society mandates that we (KMA) must provide expertise and leadership in many areas (*ie* business, social, financial, legislative, etc.) if we are to be effective in our representation of Kentucky physicians. No one association or group has the resources, expertise or manpower to effectively represent its members in so many areas or complex situations as now exist. New approaches in our efforts **must** be forthcoming.

One approach would be the development of coalitions with our friends and allies for a common cause. More and more associations are recognizing the power of coalition because they can achieve far more by integrating their resources behind a common cause. We need to develop a stronger tie with our friends in the health care industry. We must develop closer and stronger affiliations with the Kentucky Hospital Association, Kentucky Dental Association, Farm Bureau, Chamber of Commerce, Legislators, insurance companies and industry if we are to be successful.

At times, our friends in the business and professional communities may have conflicting goals and strategies. With negotiation, mutual respect and planning, however, our differences can be overcome so that we can achieve far more by integrating our resources and efforts with a more common goal.

In recent months, efforts to unite our friends and associates in the business and professional communities have been fruitful. Further coalition and communication will allow us to develop an even stronger leadership in medicine, if we accept the fact that "the days of trying to do it all yourself, are long gone."

Our friends in the hospitals, insurance businesses and the professional community will assist us if we have the courage and ability to provide the leadership. The membership must understand the necessity of the coalition approach if we are to utilize this procedure and technique effectively.

It has been said before and is still true — "United we stand, divided we fall."

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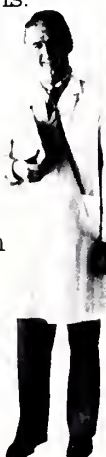


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Chronic Serous Otitis Media

Larry J. Hall, M.D., F.A.C.S.

The purpose of this paper is to familiarize the general physician with some of the aspects of controversy and treatment of chronic serous otitis media. A general review of chronic serous otitis media is given with emphasis on what part allergy may play in this disease entity followed by the author's approach to treatment and his opinion as etiology of this disease.

Introduction

A general review of chronic serous otitis media is given, with emphasis on the controversy of what part allergy may play in this disease entity followed by the author's approach to the treatment of chronic serous otitis media.

Chronic Serous Otitis Media

General: Chronic serous otitis media (CSOM) is the most common abnormality presented to otolaryngologists seeing pediatric patients.^{1,2} It is important that serous otitis media (CSOM) be found and treated early in a child's life. The development of speech is initiated by learning basic phonemes which usually occurs between the ages of one and three. Through constant auditory stimulation listening habits develop in this age group and do not develop normally in children

with limited hearing.³ Marion Downs has pointed out that educational retardation as well as the decreased quality of speech production can be associated with chronic serous otitis media (CSOM). She feels that a child's IQ can be affected with a hearing loss greater than 15 db.⁴

The most likely contributing factor to the increased incidence of CSOM has been the abundant use of antibiotics since 1940.^{5,6,7} Other contributing reasons for the increase in CSOM may be a greater awareness of the problem,⁸ the use of school screening programs,⁹ alterations of infections,¹⁰ or increase in allergic and/or pollution factors.⁵

Infectious: In a very small percent of cases (4.4%) viruses have been isolated from middle-ear effusions.¹¹ Anaerobic bacteria have also been isolated from middle-ear effusions, but rarely.¹² Liu, *et al* were able to culture bacteria in 49% of 175 effusions by using a method that dilutes the

From the University of Louisville School of Medicine, Division of Otolaryngology, Louisville, KY

SEROUS OTITIS MEDIA—Hall

antimicrobial inhibiting factors. They were able to demonstrate bacteria on smears in 80% of their effusions. They obtained positive cultures in 64% of the leukocytic effusions, 59% of serous effusions and 37% of mucoid effusions, with *H. influenzae* being the most common pathogen isolated and *S. pneumoniae* being the second most common. Fifty percent of the organisms recovered were nonpathogens and suggested further consideration of their possible role in CSOM.¹³ Eighty-four percent of patients with CSOM carry pathogenic bacteria in their nasopharyngeus as compared with an 18% pathogenic carrier rate in normals.¹⁴ Other investigators have found pathogens in middle-ear effusions,^{15,16,17,18,19,20} while some have found middle-ear effusions to be sterile.^{6,7,15,16,18,21,22}

The inhibiting factors mentioned in Liu, *et al's* work are the immunoglobulins IgA, IgG, IgM, IgD, and IgE. These are thought to be found in higher concentrations in middle-ear effusion than in serum.²³ Concentrations of IgA and IgG are highest in chronic mucoid effusions and lowest in serous effusions with IgM concentrations similar in all effusions.²⁴ The total protein concentration in middle-ear effusions exceeds that of serum with the largest difference in the electrophoretic pattern residing in the gamma globulin fraction.²⁵

This data may suggest that the humoral immune response to bacteria may play a part in the production of CSOM.

Allergy Treatment: The incidence of CSOM is particularly greater in low, damp areas such as coastal areas and river valleys.²⁶ The close anatomical and embryological relationship of the nasopharynx, Eustachian tube, and middle-ear mucosa have led many authors to consider allergy as a possible factor in the etiology of Eustachian tube malfunction.^{5,6,7,8,15,26,27,28,29,30,31,32} Allergic etiology of CSOM has been estimated in varying practices to be from 20-90%.^{10,33,34} Miglets and Hopp have found that a process similar to CSOM can be produced immunologically in sensitized animals after an appropriate antibiotic challenge.³⁵ A study of 548 allergic children showed that 48% of the children had CSOM and allergic children had twice the incidence of CSOM as non-allergic children.³⁶

Lecks reported a series of 82 children with CSOM of which 77 had the associated allergic diseases, asthma, eczema, hives, perennial allergic rhinitis, pollenosis. Seventy-two had significant reactions to skin tests, 70 had nasal eosinophils and 49 had a family history of allergy. Of 161 flareups of serous otitis media in these children, 59 were attributed to infection, 41 to food sensitivities and 71 to a combination of infections, inhalant sensitivity and food sensitivity. He lists milk, eggs, chocolate, peanuts, corn, chicken and wheat as the most common offending foods. Lecks states that upon occasion the ingestion of a single food may cause the immediate onset of earache, fever and even spontaneous rupture of the tympanic membrane.³⁷

Fernandez and McGovern reported 113 cases of serous otitis media and found 80% of the cases to have an allergic history. Nasal eosinophils above 10% were found in 90% of the patients; 64% had elevated blood eosinophils. They felt that the most common underlying factor and cause of CSOM was allergy.

Eosinophils have been found by a number of investigators.^{5,16,28,31,38,39,40} Others have found no eosinophils.^{15,26,27,37} Suehs, for example, found no eosinophils in an exam of 50 slides of middle-ear fluid from patients who clinically had obvious allergy.²⁶ Senturia found few neutrophils and very rare eosinophils.⁴¹ King and Derlacki mentioned that thicker middle-ear effusion is more apt to contain eosinophils.^{16,39} King did not feel that eosinophils were indicative of an allergic state nor did their absence rule out allergy as an etiology.¹⁶

The relationship of CSOM to allergy has also been vigorously denied in literature. Robinson notes that allergy is an etiology factor of little importance in CSOM and believes that middle-ear effusion is secondary to the infectious process. He found no eosinophils in over 100 middle-ear effusions.¹⁵ Kapur found no allergies in 52 consecutive CSOM patients.⁴² Schuknecht felt that allergy played only a minor role in his cases.¹⁷ Senturia felt that allergy was not important as an etiology factor. He felt that the strongest evidence against allergy is the inflammatory process and lack of eosinophils in mucopurulent effusion.

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Suehs states that allergy was a factor in only about 10% of his cases.²⁶

Investigators have compared IgE levels in middle-ear effusions with levels in the serum and have found no significant difference. Given no evidence of active IgE synthesis in the ear, it would appear that the middle ear is not a "shock organ";^{43,44} however, other studies have found concentrated levels of IgE in middle-ear effusions.^{45,46} Phillips, *et al* found IgE levels 12 times greater than serum as determined by Rast technique and found biopsy specimens of middle-ear mucosa fluoresced with anti-IgE. They suggest that local IgE associated hypersensitivity may play a part in the pathogenesis of CSOM.⁴⁷ Mogi using Rast found reactivity against mites (a common allergen in dust) present in five of 56 middle-ear effusions.⁴⁸ Bernstein and Reisman were unable to show any specific antibodies to ragweed and alternaria in middle-ear effusion.⁴⁹

Examination of middle-ear effusion for eosinophils and IgE has yielded conflicting results. Sloyer, *et al* have suggested that IgE is involved with antibacterial activity and its presence is not due to associated hypersensitivity.⁵⁰ Supporters of an allergy etiology for CSOM will point to the nose as the primary shock organ and argue that IgE does not have to be present in middle-ear effusion. No doubt a great deal more work will have to be done to answer these questions.

Treatment

General: When a child enters our office with a diagnosis of CSOM, generally his family physician has already treated him for a period of time on antihistamines, decongestants and antibiotics, and we feel this is the first line of treatment to be tried. If this is unsuccessful, dietary exclusion of suspected food sensitivity is instigated, usually beginning with milk, eggs, peanuts and chocolate. At the same time environmental control measures to eliminate dust and mold from the environment are started. Older patients are instructed to chew chewing gum and suck on hard candies (sugarless, if possible), blow up balloons, drink through a straw with their nostrils closed by holding the nose. This treatment is tried for three weeks. If middle-ear effusion is present at the end

of this period, a decreasing dose of steroids are given for a 10-day interval. If the course of steroids fails, middle-ear tube procedures are indicated. Generally middle-ear tube procedures are not carried out on patients under eight months of age.

Adenoidectomy: When a middle-ear tubing procedure is necessary, a check of the nasopharynx and removal of adenoid tissue is done if indicated. Several authors stress the value of removal of adenoid tissue regrowth in some patients.^{6,8,28,51,52,53} We agree that removal of all adenoid tissue is important, but in our practice adenoidectomy is generally not performed on children under 18 months of age. Dawes felt that the removal of adenoids was not important unless they were greatly enlarged. He noted that in two-thirds of his patients with CSOM the adenoids were not present or had previously been removed.⁵⁴ Bluestone states that adenoid size is not necessarily predictive of Eustachian tube function,⁵⁵ and Perlman found no parallel between the enlargement of adenoids and middle-ear effusion.⁵⁶

Tonsillectomy: Generally tonsillectomy is not considered in children under age three. In children over age three a tonsillectomy is done if the child has had five or six documented episodes of tonsillitis within the last 12 months. Rarely is it necessary to do a tonsillectomy before technically being able to do an adequate adenoidectomy.

Steroids: We feel that a short-term trial of steroids has been successful in eliminating middle-ear effusion. Steroids have in fact been utilized successfully by many otolaryngologists.^{1,20,29,37,57,58} If the patient's middle-ear effusion resolves with steroid treatment, this is a strong indication of an allergic patient. This is our personal clinical impression. We feel strongly enough about this observation that if middle-ear effusion is recurrent after the use of steroid treatment, middle-ear tube procedures are indicated and the patient meets our criteria for atopia as described further in the paper. We are at present going on with skin testing and starting a hyposensitization program.

Allergy: If one deems allergy treatment important in CSOM, then we must consider when a

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hyposensitization program should be instigated. Draper argues that in allergic patients myringotomy should be delayed until the program of hyposensitization has had a fair trial, which he states would average four to six weeks.³⁶ We would doubt that effective allergic management could be accomplished in this four to six week interval. We feel that approximately half of the CSOM patients seen in our office, the majority of which are referral patients, can be treated medically without the need for surgical treatment or hyposensitization. This was also the finding of Davison.⁵⁹ Of the office treatment failures, approximately 70% of these can be cured with middle-ear tube ventilation without the necessity for multiple-tubing procedures.⁴³ Thibert and Beique feel that conventional otolaryngological surgery and allergy treatment should be instigated at the same time.⁶⁰ This is recommended because of the chronicity with CSOM which on an average will continue for three to five years. Clemis agrees that a multiple therapeutic approach should be used. He states "there is no single therapy for the treatment of middle-ear effusion, and therefore a holistic approach to management is necessary."⁶¹ Szanton feels it is necessary to administer both allergic and non-allergic treatments simultaneously. He states that this can be best accomplished by allergy-minded otolaryngologists.⁶²

A series by Birck and Marvec in which allergy patients who had adenoidectomy and insertion of middle-ear ventilation tubes had a 43% recurrence of fluid, while those without allergic manifestations showed a 27% recurrence rate.⁶³ It would appear to be of value to pick out your allergic CSOM patients and treat them simultaneously with the first set of middle-ear ventilation tubes.

Probably one of the most effective ways that we have found to diagnose the allergic CSOM patient is that he will have the thick tenacious "glue ears." He will have multiple episodes of postoperative otitis media with tubes in place, and he will in all likelihood have recurrence of middle-ear effusion when the tubes have exuded. Other criteria are prolonged nasal stuffiness and secretions, Denine's sign (extra line fold under each eye), wrinkled nose, allergic salute, allergic

shiners. Family history for allergy in the Ohio Valley is essentially 100%, clinically of little use.

It is the author's opinion that allergy per se is not the etiology of CSOM, but that it is a contributing factor. Lemon states that clinical allergy is no more suspect of CSOM than in the general population which is 10-20%.²⁷ We feel that the percentage of clinical allergy would vary drastically according to environmental, hereditary, economic and emotional conditions. Clinical allergy defined as a percentage of the population that would seek medical treatment for their allergy problems sometime during their lifetime in our area would be approximately 30%, which again is about the percentage of our CSOM patients who are atopic.

We believe that the cause of CSOM is Eustachian tube malfunction which usually is secondary to its anatomical development during childhood. Factors that may aggravate this already sensitive process of Eustachian tube function are anatomical defects, infections, immune deficiencies, environment and allergy. It, therefore, becomes necessary to treat these since in most cases it is impossible to treat the Eustachian tube during its growth and development.

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Toxic Shock Syndrome: Kentucky's First Documented Case

MARTHA KEENEY HEYBURN, M.D., WILLIAM A. BLODGETT, M.D. AND DOROTHY EILERS MITCHELL, M.D.

Toxic Shock Syndrome (TSS) was first described in 1978 among seven pediatric patients from whom *Staphylococcus aureus* had been isolated. A previously unidentified exotoxin, proven distinct from exfoliatin, was demonstrated in all samples of the species.¹ Following this report, 55 cases were reported from multiple centers in the U.S.A. to the Center for Disease Control (CDC) in Atlanta, Georgia. Analysis of these cases revealed that 95% (52/55) occurred in women, whose mean age was 24.8 years (range 13-52 years), with onset of symptoms within five days of onset of menses.² A mortality rate of 3.2% to 15%, with a mean of 13% was reported at different centers. The differences in mortality have been attributed to variation in physician awareness of this syndrome. Therefore, we describe the early signs and subsequent physical findings in a 33-year-old woman, whose case represents the first case in Kentucky of TSS, confirmed by the CDC. The purpose of this paper is to provide Kentucky physicians adequate information about TSS to foster the lowest mortality possible.

Case Report

A 33-year-old white female presented with fever of 104°F. She had experienced vaginal discomfort two days prior to admission, and fever one day prior to admission. Myalgias and documented hectic fever followed. Generalized weakness, headache, sore throat, swelling of the face, neck and hands, a sunburn-like rash and purulent vaginal discharge with bleeding were reported. There was no nausea, vomiting or diarrhea. Despite daily contact with horses, no tick bites were noted. She did report a two-centimeter erythematous wheal on her right medial thigh believed to be secondary to an unidentified insect's bite.

She had IUD discomfort and abnormal vaginal bleeding which required IUD extraction six weeks prior to the onset of the current illness. She developed subsequent menorrhagia managed with birth control pills, and in three weeks had cessation of flow. Five days prior to the onset of her vaginal irritation, she resumed what initially seemed to be normal menstrual bleeding. It became menorrhagic, however, and she reported requiring up to 12 super-absorbant Rely brand tampons daily for control. She used the tampons continually, that is, day and night, during this time. She reported one episode of syncope with associated loss of consciousness on the fourth day following the onset of her bleeding.

Physical examination revealed an alert, white female in obvious distress. She was restless, agitated and chilling with facial and truncal erythema. There was a fine, macular cutaneous eruption

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most prominent on the trunk, but also present on the extremities and neck. Blood pressure was 120/60, mm Hg, pulse 129/minute, respirations 28/minute, and temperature 103.9°F.

Marked non-pitting edema of the face and neck was present. Conjunctivae were normal. The posterior pharynx and soft palate were mildly erythematous. The tongue was coated grayish-white. Enlarged superior cervical and axillary nodes were present. The neck was supple with no jugular venous distention present. The lungs were clear to auscultation. Neither costovertebral angle nor flank tenderness was present. Cardiac examination revealed a regular tachycardic rhythm without murmurs, gallops, snaps or clicks. Examination of the lower abdominal quadrants revealed mild tenderness. Pelvic examination revealed nonspecific forniceal tenderness with purulent vaginal exudate. At no point was exquisite tenderness to cervical manipulation present. Nonpitting edema of both upper and lower extremities was present, but examinations of muscle tone, strength and pulses were all within normal limits.

Laboratory Data

White blood cell count was 12,700/mm³ with a left shift of 10% bands, 87% neutrophils, 1% lymphocytes and 2% monocytes. By the second hospital day, the white blood cell count had increased to 14,100/mm³ with 31% bands and 63% neutrophils. By the fourth hospital day, the left shift had regressed to 4% band forms and 15% eosinophilia was reported, but an absolute eosinophil count was within normal limits at 440/cu mm (nl 0-450). Platelets, initially estimated as adequate, were estimated by the same workers to have increased the second hospital week. Arterial blood gases showed pH 7.45, PO₂ 87 mm Hg, PCO₂ 20 mm Hg, and HCO₃ 14 meq/l. Chest x-ray and ECG were normal. A two-hour urine pregnancy test and monospot were negative.

An admission vaginal culture grew a strain of *Staphylococcus aureus* which was resistant to penicillin, but sensitive to methicillin and cephalosporin. The organism was identified as phage type 96 by the CDC. Repeat vaginal culture obtained on the fifth hospital day grew occasional colonies

of *S. aureus*, and was negative by the 13th hospital day. Bacterial cultures of the blood, throat, and urine on admission, the nares on the fourth hospital day, and the rectum on the seventh hospital day were all negative for pathogens.

Hospital Course

In the first 24 hours of hospitalization the fever increased to 105.1°F despite 10 grain aspirin suppositories every two hours, alcohol baths every 30 minutes and continual use of a cooling blanket. Finally, a single dose of Thorazine, 25 mgm IM was used and within 30 minutes a 2°F drop in temperature occurred.

The patient initially received penicillin and gentamycin. When *S. Aureus* was identified in the vaginal culture, nafcillin was substituted for Penicillin-G. With the initiation of nafcillin, 30 minutes after administration of Thorazine, defervescence continued. Thereafter, the T_{max} never exceeded 102.0°F and aspirin suppositories were adequate for fever control. Not until the seventh hospital day was the patient afebrile 24 consecutive hours.

The second hospital night, 48-60 hours after onset of fever, two-four hours after receipt of Thorazine, the patient's blood pressure began to drop. The lowest recorded blood pressure was 72/40 mm Hg. Although her urine output and clinical appearance remained stable, the patient remained hypotensive for 12 hours with an average blood pressure of 75/40 mm Hg.

The macular rash and edema persisted through the first hospital week. The second hospital week, fine peeling of abdominal and neck skin developed. Thicker desquamation of fingertips began on day seven. Desquamation of the soles of her feet began on day 24 and persisted for three weeks. Physical findings, CXR and EKG changes consistent with transient pneumonitis and myocardial ischemia developed the second hospital week.

The salient, multi-systemic features of Toxic Shock Syndrome which occurred during the course of this patient's illness are summarized in Tables 1 and 2.

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Following discharge, cervical, vaginal, nasal and rectal cultures were initially negative for pathogens. Six weeks after onset of her illness, nasal cultures were positive for *Staphylococcus aureus*, although vaginal and rectal cultures were both negative. The patient complained of a recurrent temperature of 100°F, sore throat, nausea, weakness and recurrent fingertip desquamation. Her nares were irrigated with bacitracin and her complaints resolved spontaneously over one week.

Discussion

Toxic Shock Syndrome is a *Staphylococcus aureus* toxin-related disease. In three initial retrospective studies reported by the C.D.C., the following factors were found to be more prevalent among TSS patients: 1) tampon use during menstruation, 2) continual tampon use (day and

night) during menstruation, 3) use of no contraception, and 4) positive *staph aureus* cultures during menstruation.³ TSS patients showed no difference from controls with respect to marital status, parity, frequency of intercourse, number of sexual partners, frequency of intercourse during menstruation, intensity and duration of flow, use of douche or sprays during menstruation, brand of tampon or napkin, absorbancy of tampons or the use of deodorized tampons.³ More recently, however, the C.D.C. reported an

TABLE I

FEATURE/ORGAN PERIOD INVOLVED		DEVELOPMENT
SENSORIUM	Day 1 - Day 3	Anxiety, agitation, restlessness, pre-dominant.
	Day 6 - Day 9	Fatigue, slurred speech, irritability.
	Day 9 - Day 10	Frank depression: blunted affect, apathy, psychomotor slurring, slurred slowed speech, sense of hopelessness, suicidal ideation.
FEVER	48 hours after onset.	Tmax of 105.1°F. attained.
	Onset - Day 7	Fever persists.
BLOOD PRESSURE	48-60 hours after fever onset.	BP 72/40—lowest documented.
	60-72 hours after fever onset.	BP 72-80/40 persists.
SKIN	Day 1 - Day 4	Flush persists.
	Day 1 - Day 9	Rash persists.
	Day 4	Pruritis develops.
	Day 5	Fine truncal/cervical desquamation.
	Day 7 - Day 24	Fingertip desquamation.
	Day 24 - Day 46	Soles of feet desquamate.
	Day 1 - Day 8	Edema persists.

TABLE II

FEATURE/ORGAN PERIOD INVOLVED		DEVELOPMENT
EYES	Day 3	Complaint of sore, dry eyes; yellow discharge noted.
	Day 4 - Day 8	Conjunctivitis present.
	Day 4 - Day 16	Complaint of photophobia.
	Day 7 - Day 11	Complaint of blurring.
THROAT	Day 1 - Day 7	Erythematous pharynx and complaint of sore throat persists.
LUNGS	Day 6 - Day 16	CXR shows patchy infiltrates and cardiomegaly, not present on admission.
	Day 7 - Day 9	PE reveals moist rales in left lung base.
HEART	Day 7 - Day 15	PE reveals Grade I/VI early systolic murmur and opening snap, not present on admission.
	Day 7 - Day 9	EKG shows T-wave inversion in leads V1, V2, and V3, not present on admission.
RENAL FUNCTION		Stable throughout. BUN 6, creatinine 1.1, urine output adequate.
VAGINA	Day 1 - Day 9	Purulent discharge present in progressively smaller quantity.

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increased association with use of Rely brand tampons among TSS patients as compared with controls.⁴ For this reason, Rely brand tampons were recalled from the market on September 22, 1980.

Although an association with tampon use has been demonstrated, causality has not been proven. It is estimated that 70% of menstruating U. S. women use tampons, while the incidence of TSS has been three per 100,000 or 0.003%.³ To date, 299 cases of TSS have been reported to the C.D.C. While most cases occur in young women, 41 of these cases have occurred in men.

The C.D.C. has suggested that the tampon might act as a co-factor. That is, it could either favor the growth of organisms within the vagina, or the elaboration and absorption of toxin.³ These possibilities have not been investigated, but unrelated studies show that use of tampons in both intermenstrual and menstrual periods is associated with the development of vaginal micro-ulcerations.^{5,6} Such micro-ulcerations could provide a means of increased absorption of toxin. Tampon users may transfer organisms from their fingers during insertion, or may even share some unidentified characteristic predisposing them to TSS.⁷ Although no tampon marketed in the U.S. is sterilized, *Staphylococcus aureus* could not be cultured from 264 unused tampons of all brands obtained both from commercial sources and the opened boxes of TSS patients.⁸ No particular form of contraception has been shown to account for the lower incidence of TSS among women using contraception as compared to those using none. Some workers, however, have postulated that estrogen-progestin combinations may alter the bacterial flora in a protective way or through some other mechanism indirectly decreasing the risk of TSS.⁹

Although neither the full extent of the illness nor the absolute criteria for diagnosis have been determined, recent guidelines published in the F.D.A. Drug Bulletin are useful.⁷ These require the presence of all of the following criteria: 1) fever greater than, or equal to, 102 degrees F; 2) erythematous macular rash with subsequent desquamation; 3) systolic BP less than 90 mm Hg for an adult; 4) involvement of at least four organ

systems; and 5) reasonable evidence of absence of meningococcemia, Rocky Mountain Spotted Fever, or bacteremia.

The authors feel that isolation of *Staphylococcus aureus* is essential and propose the following criteria be adopted for the diagnosis of Toxic Shock Syndrome:

1. Sudden onset of fever greater than or equal to 39° C (102° F)
2. Macular erythematous rash with subsequent desquamation
3. Cultures positive for *Staphylococcal aureus* from vagina, cervix, rectum, nares, throat, superficial focus or abscess
4. Involvement of at least three organ systems
5. Documented drop of systolic blood pressure of 30 mm Hg or more
6. Reasonable evidence to exclude mononucleosis, scarlet fever, Rocky Mountain Spotted Fever, leptospirosis, and bacteremia.

The most consistently reported laboratory findings are leukocytosis with a left shift, elevated BUN and creatinine, elevated bilirubin, initial thrombocytopenia which changes to thrombocytosis and elevated CPK.²

Isolation of the toxin or use of antisera would be the most specific diagnostic tool. Doctor Kapral, a co-author of the original article cited, has reported to the CDC his isolation of the semipurified toxin and antisera, but such are not yet available commercially.

Currently, workers at the CDC feel the anti-biogram may be the most specific diagnostic tool. In all cases analyzed, the species are resistant to Penicillin and Ampicillin, but not to Carbenicillin. Phage typing initially seemed specific because 99% of the first 30 cases analyzed by the CDC were phage type 29/52. However, since that time, cases with several other phage types have been identified. One hundred percent of the original five cases demonstrated a positive Nikolsky sign, but since that time no species studied at the CDC has produced a Nikolsky sign.

Management Recommendations

Young menstruating women who present within one week of onset of menses with high fever

TOXIC SHOCK—Heyburn, Blodgett and Mitchell

and diarrhea, vomiting, myalgia or rash should be regarded with a high index of suspicion. Such women should be placed in an intensive care unit where observation and precautions for shock can be taken. The nares, throat, blood, suspicious superficial foci, vagina, cervix and rectum should be cultured on admission.

All isolates should be submitted to the Center for Disease Control for phage typing and antibiogram testing. Acute and chronic serum samples should also be submitted as isolation of the semi-purified toxin or use of an antiserum for diagnostic purposes may soon be available to the CDC. Records of the patient's presentation and course should accompany these samples.

Irrigation of the identified source of infection, though not yet proven to decrease the available quantity of toxin, has been recommended by the CDC (verbal communication¹⁰). A penicillinase-resistant antibiotic should be used, as such has been shown to significantly decrease the otherwise high rate of recurrence of Toxic Shock Syndrome (42%, occurring within the first two menses³). Cultures of previously positive sites should be repeated weekly during hospitalization and every two weeks thereafter for at least six to eight weeks or two full menstrual periods.

All recovering patients should refrain from tampon use for at least the first two to four menstrual cycles. Resumption of sexual activity has not been reported to effect recurrence. Restraint from continual tampon use by all women during menstruation must be considered prudent as such is associated with a significantly higher percentage of TSS patients than controls studied by the CDC.

Criteria have been proposed to distinguish "definite," "probable" and non-recurrence of TSS. Temperature greater than 38.9°C, rash, vomiting and diarrhea, and myalgia are defined as the "major criteria." Definite recurrence requires desquamation and three major criteria. "Probable recurrence" refers to episodes involving desquamation and two criteria or three of the four criteria occurring without desquamation. Two or less criteria occurring without desquamation is considered a non-recurrence.⁸ No management

recommendations for TSS recurrences have been formulated.

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Acknowledgement

We are indebted to Doctor Martin J. Raff for his help in editing this manuscript.

Correction

In the January issue of the *Journal*, the list of references to the CME article, "Photochemotherapy (PUVA Therapy) for Psoriasis," was inadvertently omitted.

References 1. Parrish JA, Fitzpatrick TB, Tanenbaum L et al: Photochemotherapy of psoriasis with oral methoxsalen and long-wave ultraviolet light. *NEJM*, 291: 1207-1211, 1974. 2. Melski JW, Tanenbaum L, Parrish JA et al: Oral methoxsalen photochemotherapy for the treatment of psoriasis: A cooperative clinical trial. *J Invest Dermatol*, 68: 328-335, 1977. 3. Epstein JH, Farber EM: Current status of oral PUVA therapy for psoriasis. *J Am Acad Dermatol*, 1: 106-119, 1979. 4. Stern RS, Thibodeau LA, Kleiner RA et al: Risk factors and increased incidence of cutaneous carcinoma in patients treated with oral methoxsalen photochemotherapy for psoriasis. *NEJM*, 300: 809-813, 1979.

Acute Dystonia Secondary to Illicit Phenothiazine Usage: A Report of Two Cases

HUGH F. STALLWORTH, M.D.

Acute dystonia can be quite dramatic in its presentation and in its response to treatment. Physicians need to be aware of these reactions occurring not only from prescribed phenothiazines, but also in the ever increasing illicit drug scene.

PHENOTHIAZINES, introduced in the early 1950's, have essentially revolutionized the treatment of mental illness. They are now used not only for the treatment of mental illness per se, but also for control of anxiety related to physical diseases, to control emesis, for intractable singultus (hiccups), to control pruritis and for pre-anesthetic medication.¹

Motor disorders occurring in association with prolonged phenothiazine therapy have been widely appreciated and investigated. The most common of these disorders is Tardive Dyskinesia which is characterized by: 1) athetoid or choreiform movements that may involve practically all the muscles of the body, 2) late occurrence in the course of treatment and often after discontinuation of the drug administration, 3) persistence of disabling manifestations for months and years in a high percentage of cases and 4) poor response to any type of therapy.² Another syndrome, less well appreciated, is distinct from Tardive Dyskinesia in that it occurs within a few days after commencement of therapy—usually on low dosage and apparently occurring less commonly than the long term effects. This syndrome is called "pseudotetanus,"³ acute dystonic reaction or acute dystonia. It is characterized by severe spasm of muscles of the neck, back, jaw and limbs and

often produces opisthotonos, mask like facies, clonic convulsions and oculogyric crises.

The etiology of these disorders is as yet unclear. It has been postulated that the occurrence of dystonic reactions may be the result of a temporary disruption of cholinergic-dopaminergic balance in the direction of cholinergic dominance in the extrapyramidal system.⁴

The purpose of this paper is to: 1) make physicians more aware of the existence and easy treatment of acute dystonic reactions, 2) emphasize that this syndrome can be caused by other than prescribed medications.

Two cases are presented where the diagnosis of acute dystonic reaction was originally missed. It was subsequently revealed that this reaction was a result of illicit drug usage. These cases were seen within a two month period in late 1978 at Ephraim McDowell Hospital, Danville, Kentucky.

Report of Cases

Case 1: A 19-year-old male was brought to the emergency room by his parents. He had a history of spasms in the neck muscles causing the neck to be hyperextended, and associated eye rolling movements. There was difficulty opening and closing the mouth. These symptoms had persisted to some degree for approximately one day. At this time the patient admitted to taking two—10 mg Valium tablets with whiskey and smoking

ACUTE DYSTONIA—Stallworth

several "joints" the night before. He had a history of multiple allergies to penicillin, milk and chocolate. Past medical history was negative for such episodes and there was no history of recent lacerations or abrasions. His oral temperature was 99.4° F, blood pressure was 140/56, pulse was 84, respiration was 16. The patient was in no acute distress and oriented to time, place and person but he was unable to cease hyperextending his neck. He was unable to keep his eyes from rolling upward. He had no difficulty speaking and complained of stiffness in his jaws and back. The rest of the neurological examination and physical examination were within normal limits. It was elected to admit the patient for observation. A lumbar puncture was unsuccessful due to the patient's uncooperativeness. Urinalysis, CBC, ECG, calcium were all within normal limits.

Twelve hours after admission his symptoms were slightly diminished. He revealed that he took some Mellaril (Thioridazine), obtained from a friend, off and on for the previous two weeks for the purpose of getting "high." It was at this time that the diagnosis of dystonic reaction was entertained and the patient was given Benadryl-50 mg IV. Within 15 to 30 minutes the signs and symptoms had completely cleared. He was kept in the hospital for another 24 hours and received Benadryl-50 mg IM every six hours. He was discharged on the following day with no recurrences of dystonic symptoms. He did not keep his follow-up appointment.

Case 2: A 21-year-old male presented to the emergency room with complaints of spasms of the legs, back, neck and facial muscles off and on for the previous nine hours. He was seen in a neighboring hospital emergency room for the same symptoms and was given IM Valium. The symptoms were relieved somewhat but returned in several hours, at which time he came to our emergency room. He did admit to alcohol and drug abuse. He was diagnosed as having muscle spasm of questionable etiology and prescribed a muscle relaxant and analgesic. Subsequently, he was observed to have intermittent spasms of arms, legs, back, neck and facial muscles at times throwing him into an almost opisthotonic posi-

tion. The rest of the neurological and physical examination were within normal limits. He did admit to taking Mellaril the night before this episode. He was diagnosed as having a dystonic reaction and Benadryl-50 mg IV was given. Within 15 minutes his symptoms were relieved. He was kept in the hospital for another 24 hours and given Benadryl-50 mg IM every six hours. Laboratory studies on this patient were essentially within normal limits. No further dystonic signs or symptoms were noted. He did not return for his follow-up appointment.

Discussion

Dystonic reactions following a short course of phenothiazines have been described in a number of papers since the late 1950's.³ These reactions seem to be somewhat rarer than those seen following long term high dose phenothiazine administration.

These dystonic reactions are easily treated by parenteral administration of a wide variety of agents; antihistamines, barbiturates, and antiparkinson agents. Response is usually quite dramatic.⁵ There is a report of three cases of drug induced dystonic reactions having a favorable response to intravenous Diazepam.⁶

Physicians need to be aware of these reactions not only in patients taking prescribed phenothiazines but also in patients who might have been exposed to these drugs for other than therapeutic reasons.

Editor's Note

It is controversial whether Tardive Dyskinesia or Acute Dyskinesia reaction is more common with phenothiazine administration.

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Rejection

THE current members of the Editorial Board of the *Journal of the Kentucky Medical Association* are serving with industry, enthusiasm, interest, talent and many individual opinions. These characteristics have not always been consistent in the past, and month by month I am prouder of the Board's involved and energetic performance. These characteristics also mean that the achievement of consensus is often extremely difficult. And it is to their further credit that open minds, attention to and respect for opposing views, almost always result in a firm consensus. When not, we print opposing views.

Robert Cox, the Executive Editor, has always been cooperative and very supportive with wise counsel in making difficult decisions. Joseph Witherington, Jr., Associate Executive Editor, has performed an outstanding job with interesting and energetic ideas and changes in the *Journal*. The Managing Editor, Donna Young, works with imagination and artistry to keep details in line and attractive. They bring a more consistent and inspired performance to the *Journal* than ever before.

If the excellence of the *Journal* were increasing, are these the reasons? Certainly not entirely.

The importance and excellence of the *Journal* depend almost completely on its contributions. These contributions are almost solely from Kentucky writers. Their large numbers and excellent quality should and do make the KMA proud. The Board wants and solicits papers from every Kentucky physician. The value of the *Journal* is enhanced as much, if not more, by contributions from the thoughtful rural practitioner as from the urbane university staffs.

No paper is rejected by the Editorial Board without a sense of loss and apology. This rejection is particularly painful to us when a paper makes a relevant contribution, but is unacceptable simply because of poor, confusing and misleading grammar and construction. A doctor can be an outstanding intellect without knowing how to write. If he were to solicit help from a talented friend, such as a high school English teacher, to achieve a publishable, sensible, simple, brief and cohesive communication, acceptance for publication would be tremendously enhanced.

And if this happens, no editorial board, bad or good, can keep the *Journal* from becoming superb and the child of proud Kentucky physicians.

AEO

PLAN TO ATTEND THE TWENTY-SEVENTH ANNUAL SYMPOSIUM ON CARDIOVASCULAR DISEASES

Executive West — Louisville, Kentucky
March 4-5, 1981 (Eastern Standard Time)



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The Jefferson County, Kentucky Academy of Family Physicians
The University of Louisville School of Medicine
The Council on Clinical Cardiology, American Heart Association

Thomas R. Trimbur, M.D., Chairman

MARCH 4, 1981 (Wednesday)

MORNING SESSION

- 8:00-8:50 a.m. Registration (coffee/rolls)
- 9:00-9:45 a.m. "New Aspects of Exercise Testing in the diagnosis of Ischemic Heart Disease"
Peter Frank Cohn, M.D.
Associate Professor of Medicine, Peter-Bent-Brigham Hospital, Boston, Massachusetts
- 9:50-10:35 a.m. "Newer Concepts in Pacing"
Eric N. Prystowsky, M.D.
Krannert Institute of Cardiology, Indianapolis, Indiana
- 10:35-10:55 a.m. COFFEEBREAK and EXHIBITS
- 10:55-11:40 a.m. "Asymptomatic Coronary Disease: A Diagnostic and Therapeutic Dilemma"
Peter Frank Cohn, M.D.
- 11:40-12:30 p.m. "Approach to the Patient with Ventricular Arrhythmias"
Eric N. Prystowsky, M.D.
- 12:30-2:00 p.m. LUNCH and EXHIBITS

AFTERNOON SESSION

- 2:00-3:15 p.m. BERNARD D. ROSENBLUM MEMORIAL LECTURE—"Overdue overhaul of AV Block"
Henry J. L. Marriott, M.D.
Director, Clinical Research
Rogers Heart Foundation, St. Anthony Hospital, St. Petersburg, Florida
- 3:15-3:30 p.m. BREAK
- 3:30-4:30 p.m. "Approaches to Limiting Infarct Size"
Richard O. Russell, Jr., M.D.
Professor of Medicine
University of Alabama, Birmingham, Alabama

MARCH 5, 1981 (Thursday)

MORNING SESSION

- 8:00-8:50 a.m. REGISTRATION (coffee/rolls)
- 9:00-9:45 a.m. "Diagnosis and Management of Asymptomatic Carotid Bruit"
Mark M. Kartchner, M.D.
Consultant, Tucson, Arizona
- 9:50-10:35 a.m. "Cardiovascular Nuclear Medicine
I. Measurement of Ventricular Function"
James H. Thrall, M.D., Associate Professor of Radiology and Nuclear Medicine,
University of Michigan, Ann Arbor, Michigan
- 10:35-10:55 a.m. COFFEEBREAK and EXHIBITS
- 10:55-11:40 a.m. "Carotid image doppler adjunct OPG and CPA"
Mark M. Kartchner, M.D.
- 11:40-12:30 p.m. "Cardiovascular Nuclear Medicine
II. Myocardial Imaging"
James H. Thrall, M.D.
- 12:30-2:00 p.m. LUNCH and EXHIBITS

AFTERNOON SESSION

- 2:00-2:50 p.m. "Clinical Anatomic and Functional description influencing morbidity survival
and adequacy of revascularization following Coronary By-pass Surgery"
Ellis L. Jones, M.D., Associate Professor,
Thoracic and Cardiovascular Surgery, Emory University School of Medicine,
Atlanta, Georgia
- 2:50-3:45 p.m. "Calcium Channel Blockers in the treatment of Cardiovascular Diseases—the
Beta-Blockers of the 1980s"
Douglas R. Rosing, M.D., Associate Clinical Professor of Medicine, George
Washington University, Bethesda, Maryland
- 3:45-3:50 p.m. BREAK
- 3:50-4:30 p.m. "Coronary By-pass for release of persistent pain following acute Myocardial
Infarction"
Ellis L. Jones, M.D.

As an organization accredited for continuing medical education, the University of Louisville School of Medicine and the American Heart Association, designates this continuing medical education activity as meeting the criteria for 12 credit hours in Category I of the Physician's Recognition Award, of the American Medical Association; acceptable for 12 hours by the American Academy of Family Physicians.

REGISTRATION: Physicians \$35 pre-registration; \$40 desk registration; Nurses \$10; Medical Students and House Staff—no charge. Contact the American Heart Association Greater Louisville Chapter, Inc., 207 Speed Building, 333 Guthrie Street, Louisville, KY 40202, (502) 587-8641.

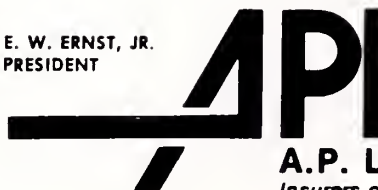
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Mast Suit Implementation

The 15 county area surrounding metropolitan Louisville will be implementing the use of military antishock trousers (MAST suit) for use by emergency medical personnel. Neighboring Indiana also intends to require the MAST suit as mandatory ambulance equipment. The trousers are an external compression device designed to facilitate vital organ perfusion.

The suit combines pneumatic pressure application to the lower extremity venous capacitance vessels with transmural circumferential pressure to the pelvis and abdomen. The spectrum of treatment ranges from hemorrhage control to volume translocation. Thus, a relative "auto-transfusion" of 500-1000cc of blood may be shunted to the core.

Since increased intraabdominal pressure limits diaphragmatic excursion which decreases tidal volume, oxygenation must be assured. Significant systemic lactic acidosis is rare, even after prolonged application, if hypotension has been corrected. The suit is radiolucent, and allows genital access for catheterization.

While there is controversy regarding the correct inflation pressures and need for its monitoring, the presence of a limiting valve at 104mmHg obviates tissue necrosis or lower extremity vascular compromise. Trouser pressures as low as

30mmHg will control hemorrhage and improve perfusion in the majority of patients.

The most crucial concept regarding the MAST suit use is that sudden deflation may be disastrous. Prior to the gradual deflation of the suit, fluid resuscitation and stabilization must be completed by those familiar with the device.¹

Major indications for MAST suit use include hypovolemia from lower extremity, pelvic and abdominal trauma.² Use with supradiaphragmatic conditions is controversial. Insufficient data exists to comment on its reported successes with intrathoracic, intracranial and cardiac conditions.

Contraindications include burns, impaired foreign objects, open fractures or spinal injuries under the area of application, abdominal evisceration and pregnancy.

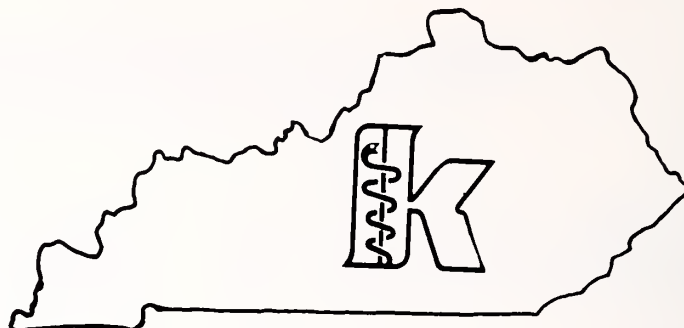
If cognizant of its limitations, the rapidly favorable and reversible hemodynamic effects of proper MAST suit utilization facilitates prehospital and intrahospital treatment of numerous life-threatening conditions. Active communications between prehospital and emergency department personnel, and familiarity with the device, will assure proper application of the technique.

References 1. Hoffman JR. External counterpressure and the MAST suit: current and future roles. *Ann Emerg Med* 9: 419-421, August, 1980. 2. Flint LM Jr, Brown Angeletta, Richardson JD, et al. Definitive control of bleeding from severe pelvic fractures. *Ann Surg* 189: 709-716, June 1979.

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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nents alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Paulson GW. *NY State J Med* 79:193-195, Feb 1979. 2. Hollister LE. Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology: From Theory to Practice*, edited by Barchas et al. New York, Oxford University Press, 1979, pp 134, 145. 3. Domino EF. Antipsychotics: phenothiazines, thioxanthenes, butyrophenones and rauwolfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed. 4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p. 476. 4. Savner R. DiMa. Extrapyramidal syndromes and other neuro side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, ed. Lipton MA, DiMascio A, Kilham KF. New York: Raven Press, 1978, p. 1021. 5. Daniloff PJ, Stenson RL. *Dis Nerv Syst* 37: 629-635, Nov 1976.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Use in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chloridazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chloridazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated.

Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs: **Cardiovascular:** Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine mesylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25: Initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12 5: Initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chloridazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chloridazepoxide and 12 5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500. Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50.

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- ☐ Limbitrol 5-12 5 is recommended to minimize drowsiness and for elderly patients.
- ☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects.

Specify daily dosage based on symptom severity

- ☐ An initial dosage of three tablets is recommended.
- ☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary.
- ☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect.

Utilize dosage options to best accommodate individual patient needs

- ☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness.
- ☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom — insomnia.
- ☐ Entire dosage h.s. to take maximum advantage of the sedative effect.

Your guide to patient management... when you decide medication is needed

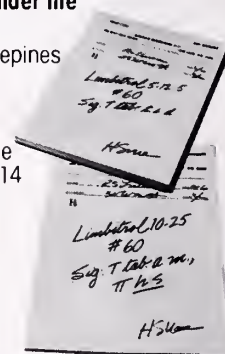
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



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Intestinal Parasitism in Kentucky: an Important Medical and Public Health Problem

Introduction

ALTHOUGH intestinal parasites are considered to be primarily a problem of tropical or developing countries, these organisms remain endemic in Kentucky and large areas of the United States.^{1,2} American physicians receive little formal training in parasitology and often feel uncomfortable when confronted with a patient with a parasitic infection. The increase in international travel among the general population, the recent influx of refugees from Latin America and Asia, and the increased number of patients receiving immunosuppressive therapy emphasize the need for practicing physicians to become familiar with the diagnosis and treatment of parasitic infections.

Intestinal parasites are an important clinical problem at the University of Kentucky Medical Center (UKMC). The most common parasite encountered is *Strongyloides stercoralis*.³ This helminth is unusual because: (1) it can remain latent within the intestine for more than 35 years after leaving an endemic area; (2) under conditions of immunosuppression it can spread throughout the body causing life-threatening disease ("hyperinfection syndrome").⁴⁻⁸ Thus, *S. stercoralis* is becoming an increasingly important problem in the compromised host.

The purpose of this Grand Rounds is to discuss some of the medical and public health aspects of intestinal parasites in Kentucky. The focus will be

on *S. stercoralis*, which can serve as a prototype for other helminths.

Life Cycle of *Strongyloides Stercoralis*

S. stercoralis lives in man, the principal host, and in the soil.^{9,10}

Free-living (indirect) cycle This takes place in warm moist top-soil. Rhabditiform larvae passed in the feces from an infected host develop into sexually mature free-living males and females. After fertilization the eggs are released and soon develop into rhabditiform larvae, which can then differentiate into free-living adults. This cycle can continue indefinitely under optimal (*ie*, tropical) environmental conditions.

Parasitic (direct) cycle Under more unfavorable conditions found in temperate climates, the $225\ \mu \times 16\ \mu$ rhabditiform larvae develop into larger ($550\ \mu$ in length) filariform larvae, the infective form of the organism. These larvae penetrate the skin of man usually around the feet and pass via the bloodstream to the lungs where they break out into alveoli. From here they ascend the respiratory tract to the glottis, are swallowed, and reach the upper small intestine where they develop into adults. The mature female worm 2-2.5 mm long burrows into the intestinal mucosa and begins to deposit eggs 28 days after initial penetration of the skin. The eggs rapidly develop into rhabditiform larvae, which are passed in the feces.

Autoinfection Some of the rhabditiform larvae within the intestine may develop into filariform

From the Veterans Administration Medical Center and Division of Infectious Diseases, Department of Medicine, University of Kentucky, Lexington, Kentucky.

larvae, which can then penetrate the intestinal wall or perianal skin and travel in the blood to the lungs and then the intestine. This process enables *S. stercoralis* to perpetuate in the host without further exposure to exogenous organisms. A variety of factors are thought to enhance autoinfection, and thus predispose to the hyperinfection syndrome or disseminated strongyloidiasis. These factors include malnutrition, impaired cellular immunity, corticosteroid administration, and conditions which impair gastrointestinal motility or defense mechanisms.⁸

Illustrative Cases

A case of the dramatic hyperinfection syndrome in a UKMC patient has recently been described in detail elsewhere.¹¹ The cases presented below are more typical of the type of patient likely to be encountered by practicing physicians. The relationship of these patients to the general features of strongyloidiasis is outlined at the end of the Discussion.

Case 1: A 55-year-old woman was admitted to the hospital with fever, chills and cellulitis of the right foot. She had severe crippling, long-standing rheumatoid arthritis, and was receiving prednisone 5 mg qd, azathioprine 50 mg qd, and aspirin 600 mg qd. Cultures of the wound revealed *Staphylococcus aureus*; she was treated with nafcillin and the cellulitis improved. About two to three days after admission the patient developed diarrhea; *S. stercoralis* larvae were found in two of two stool specimens. She was treated with thiabendazole 25 mg/kg bid for seven days and loperamide and the diarrhea resolved. She experienced mild nausea, but otherwise tolerated the thiabendazole well. Two stool specimens submitted at the end of treatment were negative for *S. stercoralis*.

The patient, who had been followed for several years in the UKMC outpatient clinic, had WBC counts of 3500-9000 with 10-20% eosinophilia, but stools had never been examined for parasites. Her admission WBC count was 6700 with 71 segs, 31 lymphs, five monos, one eosinophil, possibly reflecting the acute infectious process. The eosinophilia returned on subsequent WBC counts during her hospitalization.

Case 2: A 71-year-old man with arteriosclerotic heart disease was admitted to the hospital for control of an episode of atrial fibrilla-

tion. His major complaint on review of systems was recent onset of hoarseness but evaluation of this problem during hospitalization failed to reveal a specific etiology. He had a positive PPD, old granulomatous changes on chest X-ray, and sputum specimens subsequently grew out *Mycobacterium tuberculosis*; he was placed on isoniazid and rifampin. Admission WBC count was 6900 with 12% eosinophils, and eight of eight stool specimens contained *S. stercoralis* larvae. He was treated with thiabendazole 25 mg/kg bid for two days without adverse effects. Stool specimens on subsequent follow-up visits at two and three months were negative for parasites; WBC counts were 5000-6000 with 1-4% eosinophils.

Discussion

Intestinal parasites have been present in Kentucky for many years, particularly in the eastern part of the state. Hookworm, an important problem in the early 20th century, declined after organized programs to encourage wearing of shoes. Since then, *Ascaris lumbricoides* and *Trichuris trichiura* have emerged as the most common intestinal parasites; control of these organisms has been difficult because it must be related to improvements in sanitation and other socioeconomic factors. Studies 20-30 years ago found that about 50% of school age children in rural eastern Kentucky counties harbored one or more intestinal parasites.^{12,13} A recent survey of school children in Clay County found a prevalence of intestinal parasites of 20-25%.¹⁴ *A. lumbricoides* and *T. trichiura* were most common organisms; *S. stercoralis* was present in about 3% of specimens, a frequency unchanged from earlier studies. These data suggest that intestinal parasites remain quite common in eastern Kentucky.

Of the approximately 1,100 stool specimens examined at UKMC each year, the positivity rate for *S. stercoralis* is 2.5% whereas it rarely exceeds 1.5% for other parasites.^{13, 14} This distribution probably reflects such factors as the patient population served by the hospital, physician rationale for ordering stools for parasitologic analysis, etc. The vast majority (90%) of *S. stercoralis* patients at UKMC reside in southeastern Kentucky, an area of the state which accounts for only about 30% of hospital admissions. Only 15-20% *S. stercoralis* patients are children; most of these people are also infected with other parasites. By contrast,

S. stercoralis infection in adults is unaccompanied by other intestinal parasites. These results suggest that *S. stercoralis* infection is acquired in childhood, but the life-span of the parasite enables it to persist long after the host reaches adulthood.

Another feature which emphasizes the occurrence of *S. stercoralis* in adults is the fact that more than half the patients encountered at UKMC are over 50 years old. These patients usually have an underlying chronic debilitating illness (eg, renal failure, malignancy, obstructive lung disease) or associated infection (eg, urinary tract infection), for which they take a variety of medications.

The clinical features of strongyloidiasis in children have already been described,¹⁵ so emphasis here will be on adults. *S. stercoralis* infection is usually a chronic, relapsing illness of mild-moderate severity. The most common symptoms are referable to the gastrointestinal tract and include abdominal pain, diarrhea, nausea, vomiting and weight loss.¹⁶ There is often epigastric tenderness on physical examination. The typical cutaneous manifestation, "larva currens," is characterized by rapidly migrating serpiginous or urticarial lesions most often in the buttocks area.¹⁷ Pulmonary manifestations occur during the acute migration of *S. stercoralis* through the lungs but have not been well delineated in chronic infection.

The most common laboratory abnormality in strongyloidiasis is peripheral eosinophilia; eosinophil counts may fluctuate widely in individual patients followed for long periods of time.¹⁶ The white blood count and hematocrit are usually normal in uncomplicated infection. A variety of radiologic abnormalities of the small intestine (eg, mucosal irregularities, ulcerations, strictures) have been found¹⁸ but none are specific for *S. stercoralis*. Protein-losing enteropathy and malabsorption syndrome have been reported,¹⁹⁻²¹ but in some cases it has been difficult to rule out the role of other factors (eg, malnutrition) in these problems.²²

Diagnosis of *S. stercoralis* is usually made by demonstration of the characteristic larvae in the stools.²³ In one large series of strongyloidiasis patients, the diagnostic yield of a single stool specimen was about 30%; this increased to about 60% when five or more specimens were examined.²⁴

The overall diagnostic efficacy of stool examination at UKMC has been 70-75%. Optimal diagnosis of *S. stercoralis* and other intestinal parasites requires a high index of suspicion on the part of the clinician, proper collection of specimens, and an experienced microbiology laboratory. If a parasitologic etiology is suspected, several stool specimens should be obtained before the patient is subjected to radiologic contrast studies and other procedures which can impair stool examination. There are also special stool cultivation techniques for the detection of light *S. stercoralis* (and hookworm) infection, based on the tropism of the larvae for water.^{25,26} These techniques are adaptable to the clinical microbiology laboratory, but have not been widely used in this country.

Sampling the small intestinal contents can reveal *S. stercoralis* (as well as hookworm and *Giardia lamblia*) when stool examination is negative. The principal techniques have involved: (1) swallowing a gelatin capsule (Enterotest), which can be performed by a non-specialist; (2) duodenal intubation and aspiration; (3) small intestinal biopsy, which has been used mainly for histological examination of the mucosa. The diagnostic efficacy of each of these techniques varies amount different studies but success rates of > 90% have been achieved.^{16,27,28}

The major complication of *S. stercoralis* infection, the hyperinfection syndrome, has a variety of clinical manifestations (depending on site of organ involvement) and usually results in shock and death. Sepsis with gram negative bacteria is a frequent accompaniment. There is little available data in the literature about the frequency of the hyperinfection syndrome. At UKMC, it has been estimated that this complication occurs in 1.5%-2.5% of *S. stercoralis* patients. Proof of disseminated infection depends on demonstration of *S. stercoralis* extraintestinal sites, which may be difficult to achieve. A frequent clinical clue to the presence of disseminated strongyloidiasis is the disappearance of peripheral eosinophilia.⁸

The treatment of choice for strongyloidiasis is thiabendazole (Mintezol).²⁹ Administered orally in a dose of 25 mg/kg bid for two days, the drug is successful in 70-80% of uncomplicated cases of infection. Patients who are immunocompromised or who have coexistent bowel disorders may need retreatment. A five to seven day course of thia-

bendazole has been suggested for the hyperinfection syndrome,^{6,8} but the prognosis of this complication remains grave. Adverse reactions to thiabendazole, which consist mainly of nausea, vomiting, lethargy, and dizziness, are infrequent, but can be troublesome in some patients. Recently, metabolites of thiabendazole have been shown to accumulate in renal failure and be associated with side effects³⁰; thus, caution should be exercised in administering the drug to these patients.

Several alternative drugs in the treatment of *S. stercoralis* have been used but none have undergone controlled clinical trials.²⁹ Among the agents available commercially in the United States are: pyriminyl pamoate (Povan) in an adult dose of 50 mg orally tid for seven days; mebendazole (Vermox) in doses of 100 mg - 300 mg bid for three to four days.³¹⁻³³

The patients described in the case reports above illustrate a number of features of strongyloidiasis. The patient in **Case 1** developed diarrhea and eosinophilia while being treated for staphylococcal cellulitis; differential diagnosis included adverse drug reaction and parasitic infection. Treatment of *S. stercoralis* infection was continued for seven days because of her immunocompromised status, but a two-day course with careful follow-up stool examination might also have been sufficient. More importantly, the diagnosis of parasitic infection had apparently never been considered despite persistent eosinophilia and frequent medical evaluation. The patient in **Case 2** had several medical problems but no symptoms suggestive of *S. stercoralis*; diagnosis of the parasite was prompted by the presence of eosinophilia which disappeared after treatment with thiabendazole.

Conclusion

Intestinal parasites occupy a very small part of medical school curriculum, but are becoming increasingly relevant in the clinical practice of medicine. As demonstrated here, *S. stercoralis* causes illness not only in the young but also in the old, the chronically debilitated and the immunosuppressed. The following areas concerning *S. stercoralis* need further investigation: (1) serologic techniques need to be developed to screen persons at potential risk of the hyperinfection syndrome for asymptomatic infection; (2) animal

models need to be developed to understand the pathogenesis of the hyperinfection syndrome and to devise new methods of diagnosis and treatment; (3) standard guidelines need to be developed for hospital personnel dealing with *S. stercoralis* patients. Filariform larvae, which can penetrate intact skin, may be present in stools, or (if disseminated infection is present) in various body secretions (eg sputum).

On a social level the fact that intestinal parasites remain endemic over large areas of the country is a blight on our national consciousness. There is little available data on the exact prevalence of intestinal parasites, but if the results of our stool survey in one Kentucky county can be extrapolated, the frequency of these organisms may be higher than is currently thought. Little is also known about the effect of intestinal parasites in childhood growth, development and nutrition. Eradication of intestinal parasites is a worthy goal, but will require much greater attention than is currently being devoted by our medical and public health authorities.

Peter D. Walzer, M.D.

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An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefaclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (Diplococcus pneumoniae), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefaclor.

Contraindication: Cefaclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in fetuses given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefaclor.^{1,5}

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefaclor.⁷

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Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below: *Gastrointestinal* symptoms occur in about 2-5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1-5 percent of patients and include morbilliform eruptions (1 in 100), Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transient abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[1030808]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefaclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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AT a recent meeting sponsored by AMA and AMAA, one of the seminars emphasized the importance of Medical Societies, Associations and Auxiliaries working together.

It is vital that there be COMMUNICATION between the two organizations. AKMA is fortunate that KMA is receptive and supportive of our needs. I have had the opportunity of attending the Board of Trustees meetings, several committee meetings and Trustee meetings. This has been very beneficial for me as I have been able to become aware of some of their priorities. How aware are **you** of the programs of the KMA or AKMA? Do you care? Only through the united efforts of both organizations can we demonstrate to the public that WE ALL CARE.

Some State and Local Medical Associations include an Auxilian on each committee that there is a shared interest in—not just “waste basket” projects. Areas of combined interest are—legislation, political action, community and school health, membership, public relations and others. Auxiliary members have monitored HSA committee meetings and in turn received and reported on documentary reports. Most physicians cannot devote the amount of time needed to attend these, unless they are a member. Some decisions have been reversed as a result of these monitors being able to report back to their societies.

Community health education is one of the finest public image makers for the medical profession and who can better assist with these programs? One participant of the AMA—AMAA seminar stated “there is no better, absolutely no better supported or greater believer in the American Medical System than the Auxiliary.” Now all we need is for our medical societies to realize they have all this untapped potential available. I know the Auxilians of Kentucky will give their energies to a project that they are asked to undertake by their Medical Societies. Too many times they look to an outside organization for assistance when they have interested spouses close by.

Barbara Cox
AKMA President 1980-81

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Research and development, the life blood of pharmacotherapeutic progress

The drugs that have contributed so much to modern medicine were the product of long years of expensive research. And tomorrow's drugs depend upon continuation of the research and development going on right now. The cost of that research is one of the things reflected in the price of a brand-name drug. The substitution of a cheaper "generic" drug for a brand-name product may save the patient some money at the prescription counter. However, it threatens the very foundations of modern pharmaceutical research.

The hidden cost of "cheaper" generic drugs

Much of the enthusiasm for generic prescribing is based on a shortsighted view that fails to take such long-term issues into account. While cost is an important factor, pharmaceutical research, the quality of medicine, and future generations of patients must all be considered.

Settling for cheaper drugs today could deprive you and your patients of the drugs they may need tomorrow.



To encourage imitation is to discourage innovation

Pioneers in Medicine For the Family



BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Lopurin™, Ru-Tuss® and Ru-Vert®. This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-CI™



For the Majority of
Steroid-Responsive Dermatoses*
Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications.
See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylentetrazol.	30 n
Niacin.	50 n
Vitamin B-1.	10 n
Vitamin B-2.	5 n
Vitamin B-6.	1 n
Vitamin B-12.	3 mc
Choline.	100 n
Inositol.	50 n
Manganese (as Manganese Sulfate).	1 n
Magnesium (as Magnesium Sulfate).	2 n
Zinc (as Zinc Sulfate).	1 n
Iron (as Ferric Pyrophosphate, Soluble).	22 n
Alcohol.	18

See prescribing information on last page of this advertisement.



For Potassium Supplementation Improved Compliance...

TWIN-K®

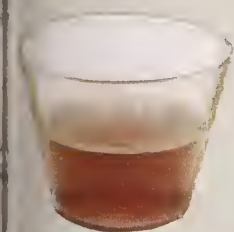
Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.

The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.¹

Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959



In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.¹

See prescribing information on last page of this advertisement.



F-E-P CREME®

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urtica; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani); folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1 F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.

2 F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzocaine or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme 1/2 ounce (15 gm) tubes NDC 0524-0026-51

F-E-P Creme Plain 1/2 ounce (15 gm) tubes NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an anesthetic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz)

NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hypokalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

- 1 Elimination of potassium containing drugs or foods.
- 2 Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
- 3 Correction of acidosis.
- 4 Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz)

NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbitol and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiency are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-Cl be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia. The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hypokalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

- 1 Elimination of potassium containing drugs or foods.
- 2 Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
- 3 Correction of acidosis.
- 4 Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

MANUFACTURED & DISTRIBUTED BY

Boots Pharmaceuticals, Inc.

Shreveport, Louisiana 71106

Pioneers in Medicine For the Family



Handy tear-out page of current officers of Kentucky specialty groups: 1980-81

Kentucky Society of Allergy and Clinical Immunology—President: Martin Kaplan, M.D., 1725 Harrodsburg Road, Lexington, 40504

Kentucky Society of Anesthesiologists—President: Paul Fleitz, M.D., 1720 Castleberry Road, Louisville, 40205

Kentucky Chapter, American College of Chest Physicians—President: N. K. Burki, M.D., Ph.D., Pulmonary Division, Department of Medicine, UK Medical Center, Lexington, 40536

Kentucky Dermatological Society—President: Janice W. Yusk, M.D., Suite 6-C, Suburban Medical Plaza, Louisville, 40207

Kentucky Chapter, American College of Emergency Physicians—President: James L. Combs, M.D., 21st & Eastern Avenue, Covington, 41011

Kentucky ENT Society—President: Thomas B. Logan, M.D., 800 N. Elm Street, Henderson, 42420

Kentucky Chapter, American Academy of Family Physicians—President: Stephen B. Kelley, M.D., Somerset Medical Center, Somerset, 42501

Kentucky Neurosurgical Society—President: A. Byron Young, M.D., Dept. of Neurosurgery, UK Medical Center, Lexington, 40536

Kentucky OB-GYN Society—President: Preston P. Nunnelley, M.D., 1800 S. Limestone, Suite 200, Lexington, 40503

Kentucky Occupational Medical Association—President: John L. Creech, Jr., M.D., 801 Barret Avenue, Louisville, 40204

Kentucky Society of Pathologists—President: James McManus, M.D., 2370 Nicholasville Road, Lexington, 40503

Kentucky Chapter, American Academy of Pediatrics—President: Thomas A. Courtenay, M.D., 518 Medical Towers, Louisville, 40202

Kentucky Orthopaedic Society—President: Robert B. Miller, M.D., 1528 Lone Oak Road, Paducah, 42001

Kentucky Chapter, American College of Physicians—President: Walter S. Coe, M.D., 207 Baptist East Doctor's Building, Louisville, 40207

Kentucky Society for Plastic & Reconstructive Surgery—President: Gerald D. Verdi, M.D., 250 East Liberty Street, Louisville, 40202

Kentucky Psychiatric Association—President: James D. McNeely, M.D. Norton-Children's Hospital, Louisville, 40202

Kentucky Association of Public Health Physicians—President: Grace Eddison, M.D., Gateway Distr. Health Dept., P. O. Box 666, Owensville, 40360

Kentucky Chapter, American College of Radiology—President: Nettie King, M.D., Dept. of Radiology, Southwest Jefferson Hospital, 9820 Third Street Road, Louisville 40272

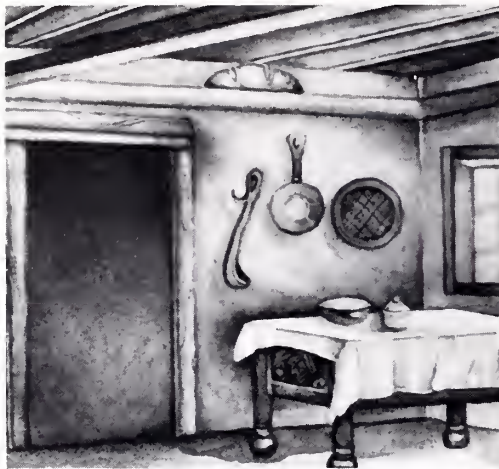
Kentucky Chapter, American College of Surgeons—President: Henry N. Meiers, M.D., 3311 Brookhill Drive, Lexington, 40502

Kentucky Urological Association—President: L. S. Goode, M.D., 1610 South Main Street, Hopkinsville, 42240

Kentucky Academy of Eye Physicians & Surgeons—President: Gary R. Wallace, M.D., 1221 South Broadway, Lexington 40504

Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.¹



Today's Tradition: **Tegopen**[®] (cloxacillin sodium)

for the treatment* of
known or suspected
staphylococcal
infections such as:

- Acute sinusitis
- Furunculosis and carbuncles
- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
- Infected sebaceous cysts

In serious, deep-seated
staph infections, 500 mg
q.i.d. dosage is
recommended.[†]

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.²
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.^{‡2}
- 88% of *S aureus* has been reported resistant to penicillins G and V.^{‡2}
- Staph resistance to erythromycin may develop during a course of therapy.³



Available as 500-mg and 250-mg capsules
and Oral Solution 125 mg/5 ml.

Tegopen[®] (cloxacillin sodium) Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on
an adjoining page.

Copyright © 1981, Bristol Laboratories

*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

[†]In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

[‡]Not all isolates may have been tested using both discs.

Tegopen®

(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information, consult Official Package Circular
(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg q 6h

Children: 50 mg /Kg /day in equally divided doses q 6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

A/B INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg /5 ml. in 100 ml. and 200 ml. bottles.

BRISTOL®

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Division of Bristol-Myers Company
Syracuse, New York 13201

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**Is Your Practice Healthy?
Your CPA Can Help.**



A Certified Public Accountant can ease the burden of your most important decisions.

Should you incorporate? Which retirement plan is best for you? Should you lease or buy office space and equipment? What should a partnership or employment agreement include? Making financially sound decisions in these and many other areas is vital to a successful medical practice.

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more than a title, it's a profession
Kentucky Society of Certified Public Accountants

AT THE
AMERICAN MEDICAL ASSOCIATION —
WE'RE INVOLVED IN MEETING
THE IMPORTANT CHALLENGES AND
RESPONSIBILITIES OF THE 80's.

This is the first of a series of reports on
major issues facing the medical profession. The purpose is to
inform physicians on what the AMA is doing, on behalf of
the profession and the public, to influence decisions that will
affect health care in the next decade and beyond.

CONTAINING THE COST OF HEALTH CARE

In the year ending March of 1979, expenditures for health (including health insurance, supplies, construction and research) totaled \$198 billion or 9 percent of the Gross National Product (HEW figures). Physicians directly affected at least \$130 billion of that sum through hands-on care as well as prescribed tests, drugs, and hospitalizations.

There is *little* that can be done to cut the \$500,000 to \$750,000 price of a computed tomography scanner, or the \$400,000 price of a radiation unit for cobalt treatments, or the wages of the hospital personnel who handle them. There is *little* that can be done to keep many of today's fixed expenses from getting bigger in the inflation of the 1980s.

But there are things that *should* be done, *can* be done, and *are* being done. Numerous hospitals, with physician support, have boosted their productivity while holding the *proper* line on hiring of personnel, examination of patients, length of patient stays, and so forth. "Proper line" means doing what can be done without cutting the quality and needed availability of care.

These cost-effective measures have been stimulated by a largely private initiative called the Voluntary Effort to Contain Health Care Costs—a coalition that includes the AMA, the two main hospital associations, health insurers, industry, labor, local government, and consumers. In 1978 and 1979 the Voluntary Effort was instrumental in saving consumers about \$3 billion, and in convincing the U.S. House of Representatives that the voluntary way was the "way to go," as opposed to the White House proposal for rigid cost controls that could have reduced the level of hospital care. Also in 1978-79,



in response to a plea from the then-president of the AMA, physicians kept their fee increases below the all-items component of the Consumer Price Index, despite steady erosion of their purchasing power. Right now the rate of fee increase is more than 3 points below. . . and the AMA is committed to keeping it low.

There are additional highways the health-care industry can take toward containment of costs—highways with a much clearer view of the road ahead than federal controls could allow. One route is insurable home care, when appropriate, as an alternative to relatively expensive institutional care. This has been advocated by the AMA as a formal policy.

Another route is for health insurers to offer consumers a greater marketplace choice in the patterns and costs of benefits. This was one of 48 recommendations made in 1977 by the AMA-sponsored National Commission on the Cost of Medical Care—a free standing body that included representatives from federal and state government, academia, and research as well as from industry, labor, health care, and insurance.

Still another highway is a long-term cost-containment program entailing changes in the ways hospitals, physicians, patients, and insurers behave and interact. The AMA is helping draw parameters for just such a program, in line with Cost Commission recommendations.

A working advantage of such voluntary approaches is that they are *natural* to the special character of health care—natural to its sensitivity, its interdependency, its complexity.

The 80s could well be decisive for the way in which health care is to be delivered in this country. We must have a strong and decisive voice in determining the direction of health care in the U.S. The AMA is that voice and your advocate. In order to continue our vital programs and activities and address the problems of our profession, we need your support. If you are not already one of the 221,000 physician or medical student members of the AMA, join us now!

For details on how to join, send us your name and address on the attached business reply card, or write or call the AMA Office of Membership Development, American Medical Association, 535 N. Dearborn, Chicago, IL 60610, (312) 751-6410.

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Adjunctive **Librax**[®]

Each capsule contains
5 mg chlordiazepoxide HCl
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antianxiety/antisecretory/antispasmodic
for adjunctive therapy of duodenal ulcer*
and irritable bowel syndrome*

Librax[®]

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addic-

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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Barron's How to Prepare for the New MCAT Medical College Admission Test

Hugo R. Seibel, Barron's Educational Series, Inc., 1980, 287 pages

The ominous spectre of the entrance examination, particularly the MCAT (Medical College Admission Test) looms over all current aspirants to the medical fraternity. However, in the current CME emphasis, those of us who passed such obstacles in the maze of physician education may find it useful to resurrect the "basics" and perhaps relearn some useful information. Barron's paperback library has a respectable track record in the medical publishing field. This latest and revised edition of the MCAT capsulizes the cornerstone science and mathematics information admirably. Other sections attempt to rehearse the probing of the exam of analytic reading and quantitative faculties. Mock tests, timed for practice at pacing and stress, are inserted to spot check the students progress.

If the student has not spent his premedical years doing his job at acquiring fundamental basic science information, then such a concise and distributive book will leave him wanting. For the conscientious student and those of us who enjoy the recollections of past studies, these reviews are welcome.

Clinical Handbook of Antipsychotic Drug Therapy

Aaron S. Mason, M.D. and Robert P. Granacher, M.D., Brunner/Mazel, Publishers. 1980, 329 pages

Our Kentucky residing brethren have constructed a worthy, useful and easily read clinical handbook of Antipsychotic Drug Therapy. Once past the cumbersome title, the reader is didactically introduced to the basics of psychopharmacology as they pertain to the neuroleptics. Respecting the tenet that pharmacology books must have organic molecular figures, the authors graciously compress these into a few pages that can be avoided. Yet repeatedly the categories of drugs are emphasized, both in tables and in the body of the text, reinforcing the suggestion made early on that these drugs can be learned and used logically. The early pages, as well as scattered sections later, are filled with succinct "how to" information. Drugs are referred to by both their given and generic names. Minimum and maximum dosages are suggested. The knack of administering these drugs to patients whether they be combative, reluctant, aged or youthful is repeatedly described and specified. Clinical experience has colored the authors outlook and with humane yet direct judgement the various front line situations are pictured and suggestions made. An entire chapter is dedicated to rapid tranquilization methods, the advent of which has expedited the inhospitalization course of psychiatric patients recently.

The simple yet potent cousin of the antipsychotic drugs, Lithium, is given a respectful segment. The impact on bipolar and perhaps unipolar mental illness is historically documented. Precautions are to be recognized and the role of the clinical laboratory in monitoring Lithium blood levels as well as its place in ferreting out drug patient inconsistencies is emphasized.

For joy, there is but one graph in a pharmacology book!

Many tables are well placed, reinforce the text, crystallize categories of drugs, the tricks of administration, symptom types, etc. This makes the handbook seem like the handbook it is.

There are bountiful references, but we are spared from having to deal with them until the end.

The authors are definitive in their recommendations. Nevertheless, with superlative endorsements from their peers, the reader could safely adopt much of this material as the state of the art.

Psychiatrists have the company of many physicians in using the antipsychotic drugs. This handbook forgives ignorance of all nuances of psychiatric practice and the reader will be comfortable at his working knowledge from this book.

Review of Medical Pharmacology

F.H. Meyers, E. Jawetz and A. Goldfien, Brumer & Mazel, Inc., 1980, 329 pages

The growing plethora of drugs makes a "review" of medical pharmacology an ambitious undertaking. The authors have the task of covering a broad spectrum of substances, both to understand their method of action and their toxic potential. This is done successfully, though for sure not completely. There is an inexorable production of new pharmaceuticals and periodic resurrection of retired ones. In this nursery of substances, information about their uses, abuses and hazards is produced and needs to be published. This book attempts a digestible review and when read will give the reader a perspective of pharmacology.

Initial chapters embark on a tour of pharmacological mechanisms, but interdigitate unrelated chapters on chemical evaluation, dermatological application and drug abuse.

Despite this inauspicious and patchwork beginning, the next sections are educational and well organized. Autonomic and cardiovascular drugs are carefully clarified and tabled. Illustrations of experiments on these drugs add nothing to the text. Central nervous system drugs are a confusing lot, but with these chapters such drug administration is not formidable.

Endocrine pharmacology has the respect of the authors. In the hundred pages allocated, the master gland and its family are explained, their biology reviewed, chemistry illustrated and interactions demonstrated. Too many organic molecules and amino acid chains are the only drawbacks.

The advent of extra institutional parenteral nutrition and ambitious inhouse rescue efforts make the handbook knowledge of metabolic pharmacology a must. The substances added to the omnipresent bottles are indeed drugs, whether basic elements or their more complicated organic substances.

Chemotherapy completes the last 1/3 of the book. Though now a catchword for the cancer pharmacopoeia, this term refers to the therapeutic gamut, from infections, allergy, autoimmunity, etc.

An ominous but essential conclusion deals with toxicology but probably specific reference texts and local hotlines are more beneficial.

The appendix has parts on drug effects on lab procedures, hazards in pregnancy, apothecary equivalents, controlled drug substances and surface areas. These are very useful but not easily read.

This is not a textbook, yet too much for a handbook. If a compromise of this is acceptable, this book will be a worthwhile purchase.

William Doll, Jr. Joins KMA Staff



William E. Doll

Mr. William E. Doll, Jr. was recently named as Director, Legislative and Governmental Affairs for The Kentucky Medical Association. In making the appointment, Mr. Robert G. Cox, KMA Executive Vice President, stated that Mr. Doll, an attorney, "brings a new dimension to the KMA staff during these times when legal affairs play an increasing role in medicine."

Mr. Doll has served KMA in a part-time role as a lobbyist since 1976 and in his full-time capacity will continue in legislative and governmental medical matters. He will also serve as legal advisor within the KMA staff structure and as liaison with KMA's legal counsel.

Carl Wedekind, Jr. is Appointed President of KMIC



Carl L. Wedekind, Jr.

Carl L. Wedekind, Jr., has been appointed President and Chief Executive Officer of Kentucky Medical Insurance Company (KMIC) by the KMIC Board of Directors.

A native of Louisville, KY, Mr. Wedekind received his undergraduate and LLB Degrees from the University of Virginia. Mr. Wedekind has been a senior partner in the Stites, McElwain and Fowler law firm in Louisville, and will continue as counsel to the firm. He lives in Louisville with his wife, the former Stephanie Swenson, and his three children.

Mr. Wedekind was involved in the formation of KMIC, founded in 1979, and has served as legal counsel to the KMA and the Jefferson County Medical Society for a number of years. He was appointed by the Board of Trustees of the KMA as one of the original KMIC Board members and has served since its inception as general counsel to the insurance company.

In addition to his duties as KMIC President, Mr. Wedekind will continue as legal counsel to the company and the KMA. Mr. Riley Lassiter will continue with KMIC as Vice President for Operations.

Group Term Life Insurance Now Offered by KMA

The Kentucky Medical Association is proud to announce another membership benefit—group term life insurance.

Many physicians may have a need for term insurance to complete their financial planning program. Term insurance provides a stated amount of life insurance coverage for a predetermined period of time. With this new KMA program, you and your employees can have adequate protection during your most active, income-producing years.

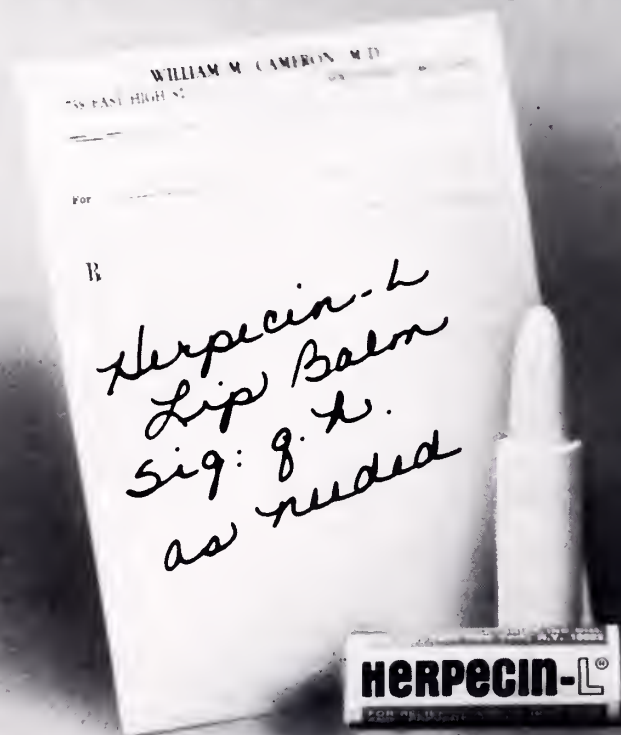
Two basic coverages are available, the Individual plan and the Professional Services Corporation plan. The former is designed for the individual practitioner, while the latter is for physicians who own all or part of a

medical corporation. Insurance premiums may be tax deductible to the corporation. Coverage for employees is available with either plan, and waiver-of-premium for disability is provided with both at no extra charge.

The group term coverages are being offered through and administered by the KMA Insurance Agency, Inc. The marketing representative of Kentucky Medical Insurance Company will provide professional sales services. The plan is underwritten by PICO Life Insurance Company, a subsidiary of Physicians Insurance Company of Ohio.

All active members of the Kentucky Medical Association are eligible to participate in the plan. If you would like more information call the KMA Insurance Agency (502) 459-3400.

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In Kentucky, "Herpecin-L" Lip Balm is available at all
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Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Robert J. Burckardt, M.D., Louisville
Narong Chalothorn, M.D., Prestonsburg
Milton Comer, M.D., Louisville
James W. Curry, M.D., Louisville
Richard D. Floyd, M.D., Lexington
Helen M. Gray, M.D., Louisville
Thomas L. Heavern, M.D., Highland Heights
Steven J. Hodge, M.D., Louisville
Walter M. Jones, M.D., Murray

Charles D. LeNeave, M.D., Mayfield
Justin MacCarthy, M.D., Glasgow
James A. Parrott, M.D., Hopkinsville
Ann C. Price, M.D., Louisville
Carl E. Rutledge, M.D., Bowling Green
Mohammad Shafii, M.D., Prospect
Ellis R. Taylor, M.D., Lexington
Elvis R. Thompson, M.D., Pikeville
Edward P. J., Todd, M.D., Lexington

KMA House of Delegates Honors Doctor Simpson

A special resolution was passed at the September meeting of the KMA House of Delegates honoring G.L. Simpson, M.D. for his 34 years of service to the Rural Kentucky Medical Scholarship Fund as well as his involvement with the KMA.

Doctor Simpson has been on the Rural Kentucky Medical Scholarship Board since its inception and became Chairman of the Fund in 1971. He was the second Chairman of the Fund in its 34 year existence, and

held this position until 1980. During Doctor Simpson's tenure as Chairman, the Fund doubled the number of loans granted and achieved a high success rate for placement and retention of physicians. Doctor Simpson also received a special plaque from the Scholarship Board commemorating his dedicated service to the Fund which has been responsible for placing more than 400 physicians in rural Kentucky.

Laman A. Gray, Sr., M.D., was elected President of the Southern Surgical Association at their Annual Meeting in Palm Beach, Florida, Dec. 10. Doctor Gray received the KMA Distinguished Service Award this September for his more than 40 years of service to medicine.

At the October meeting of the AMA Board of Trustees, two Kentucky doctors and a medical student from

the University of Louisville, were appointed to positions on AMA committees.

Frank M. Gaines, M.D., Louisville, will serve on the Committee on Accreditation of Continuing Medical Education. **D. Kay Clawson, M.D.**, Lexington, is serving on the Residency Review Committee of Orthopedic Surgery and **Laura D. Lowrey**, Louisville (student) will serve on Task Force #6.

NEW MEMBERS

BARREN

Jake Hollen, M.D., Glasgow
Rafael Parlade, M.D., Glasgow

BOYD

William T. Conner, M.D., Ashland
Dick C. Larumbe, M.D., Ashland

CALLOWAY

John W. Golberg, M.D., Murray

CAMPBELL-KENTON

Pamela Sue Hodges, M.D., Covington

DAVIESS

Charles C. Crimpler, M.D., Owensboro
Colm McHugh, M.D., Owensboro

FAYETTE

Richard W. Baehler, M.D., Lexington
Norman H. Bass, M.D., Lexington
Charles Richard Bowers, Jr., M.D., Lexington
Thomas A. Donohue, M.D., Lexington
Martha M. Foster, M.D., Lexington
James Michael Guiler, M.D., Lexington
Daniel E. Kenady, M.D., Lexington
J. Douglas Knoop, M.D., Lexington
Robert Gregory McMorrow, M.D., Lexington
David Andrew Meyer, M.D., Lexington
Paul J. Nicholls, M.D., Lexington
John W. Poundstone, M.D., Lexington
Leon Julius Ravvin, M.D., Lexington
John H. Saunders, M.D., Lexington
John P. Tuttle, Jr., M.D., Lexington
Robert D. Woods, II, M.D., Lexington

FRANKLIN

Joseph J. Dobner, M.D., Frankfort
William H. Hanking, M.D., Frankfort

HENDERSON

Robert A. Davis, M.D., Spottsville
Allan M. Korn, M.D., Evansville
Fred Sigda, M.D., Evansville

JEFFERSON

Joseph C. Allegra, M.D., Louisville
Arthur H. Althaus, Jr., M.D., Louisville
Christine F. Ball, M.D., Louisville
Lyle H. Boyea, M.D., Louisville
Bonnie R. Camp, M.D., Louisville
Russell Hoffman, Jr., M.D., Louisville
James K. Horton, M.D., Louisville
Mark S. Jorrich, M.D., Louisville

Rudy Kovachevich, M.D., Louisville
Sheila A. Mathew, M.D., Louisville
Douglass O. Peeno, M.D., Louisville
Gary H. Peterson, M.D., Louisville
David R. Raper, M.D., Louisville
J. Michael Ray, M.D., Louisville
Donald M. Schreiber, M.D., Louisville
Charles G. Smith, M.D., Louisville
Jay M. Spector, M.D., Louisville
Robert H. Stewart, M.D., Louisville
George R. Tanner, Jr., M.D., Louisville
Herbert Wagemaker, M.D., Louisville
Donald V. Welsh, M.D., Louisville
John J. Whitt, M.D., Louisville
Janey Wygal, M.D., Louisville

LAUREL

Robert A. Prots, M.D., London

McCRACKEN

Kenneth Cook, M.D., Paducah
Richard Cribbs, M.D., Paducah
Michael J. Jones, M.D., Paducah
William N. Miller, M.D., Paducah

PIKE

Michael A. Passidomo, M.D., Pikeville

POWELL

William David Fiorini, M.D., Clay City

PULASKI

Madhukanta J. Patel, M.D., Somerset

SCOTT

Thomas Lee Yount, M.D., Georgetown

WHITLEY

Arun B. Rindani, M.D., Corbin

How's Your Cost Consciousness?

FEBRUARY—The productivity of physicians and the number of hours they choose to work can seriously affect the price of physician services. Efforts on the part of the physician to treat more patients will help to combat inflation. Substantial gains in physician productivity appear to be possible through the increased use of ancillary personnel.

IN MEMORIAM
Paul W. Cronen, Sr., D.O.
1919-1980
Louisville

Paul W. Cronen, Sr., D.O., Louisville, died Dec. 26, at Audubon Hospital. Doctor Cronen was a 1956 graduate of the Kansas City College of Osteopathic Medicine and was a member of KMA for 10 years.

Frederic C. Hauck, M.D.
1924-1980
Owensboro

Frederic C. Hauck, M.D., died Dec. 6, at Good Samaritan Hospital, Cincinnati. Doctor Hauck was a 1950 graduate of the University of Louisville School of Medicine. He was a member of the KMA, AMA and Daviess County Medical Society.

Medicaid

Resolution R passed by the House of Delegates in September called for an extensive study of the Kentucky Medical Assistance Program by KMA to satisfy questions and address problems encountered by physicians. Part of the resolution provided for a special meeting of the House of Delegates on or before April 16 to consider the results of the Medicaid Study and consider KMA's position on the program.

In January several cost cuts in Medicaid were announced by the Department For Human Resources. Cuts affecting physicians were projected to reduce expenditures for physicians' services by \$1.9 million. The KMA Board of Trustees held a special meeting on January 15 to consider the announced costs cuts and to monitor the actions taken place to date directed by Resolution R.

The cost cuts consisted of reducing comprehensive office visits from two to one a year, preauthorization for routine elective non-emergency surgery and reductions of in-hospital payments for physicians' services from 70 to 60% of allowable Medicare rates.

Considered along with the proposed Medicaid cuts and Resolution R, the Board reviewed the possible impact of Senate Bill 53 passed by the 1980 Kentucky General Assembly which would make payments to physicians "equal regardless of location of practice." Senate Bill 53 has not yet been implemented.

The Board's views reflected the ongoing concerns of the membership with Medicaid, but took into account the stark outlook of the state's financial future. The entire situation is being monitored daily through the Board's direction, and every effort will be made to keep the membership advised.

Office Practice Workshops Scheduled for April

The KMA will again offer the new physicians workshops, scheduled for April 21 and 22, at the Executive West Hotel, Louisville. The two-day intensified course, "**Starting Your Practice**," is presented by the AMA's Office of Practice Management and will feature instruction on financial control of a practice, hiring, employee motivation, office layout and a variety of other topics. Registration is limited and anyone interested in participating should contact the KMA Headquarters Office as soon as possible.

The KMA will also be sponsoring a workshop with the AMA's Office of Practice Management called "**Collections**." The morning program, on April 23, will be designed to inform medical assistants of the procedures and techniques used in making collections from their employer's patients. The afternoon session will allow medical assistants to meet with insurance representatives from the major medical carriers and the Medicaid and Medicare program. This will also be held at the Executive West and anyone interested should contact the KMA Headquarters Office.

Headquarter's Activity

FEBRUARY

- 5 Ad Hoc Coordinating Committee on Peer Review, Louisville
- 10 *Journal* Editors, Louisville
- 12 Long-Term Health Care, Frankfort
- 12-15 AMA Leadership Conference, Chicago
- 19 Committee on Physicians' Health, Louisville
- 19 Committee on Community and Rural Health, Louisville
- 26 Ad Hoc Committee on Physicians Assistants, Louisville

MARCH

- 5 Executive Committee RKMSF, Louisville
- 10 *Journal* Editors, Louisville
- 12 Budget Committee, Louisville
- 19 KMA Executive Committee

APRIL

- 1 Board of Trustees, Louisville
- 1-2 Synergy in Leadership, Louisville
- 14 *Journal* Editors, Louisville

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

FOR RENT

BEACH-SIDE CONDOMINIUM, Furnished, two bedroom, two bath, Sarasota, Florida, R. Hench, M.D., (606) 266-4941. Call collect.

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ULTRASOUND: ADR MODEL 2130 linear array real time. Essentially new. Under warranty. Has electronic caliber with 5.0 and 3.5 MHZ transducer as well as other features. Will sell or lease. Contact: Pam Morgerson at (606) 277-7176.

MEDICAL OPPORTUNITIES

NEED LOCUM TENENS to work for me June or July for 4-6 weeks. Residence and car provided to right person. No OB. One night a week night call. Busy daytime family practice. Contact Dr. G.R. Womack, P.O. Box 344, Flemingsburg, KY (606) 849-2323.

INTERNISTS, PEDIATRICIANS, FAMILY PRACTITIONERS, Ob-Gyn, General Surgeons: Small group practice in rural Kentucky recruiting additional members. Excellent medical facilities. Quality place to live. Competitive income. Creative approach to practice of medicine. Exciting opportunity to make a difference. Contact Oris Aaron, M.D., Columbia, Kentucky 42728, (502) 384-4751.

GENERAL SURGEON—BOARD CERTIFIED or eligible general and vascular surgeon to join multi-specialty group. Thoracic training desirable but not mandatory. Small college community in Appalachian foothills with outstanding family living. Attractive compensation package and working conditions. CONTACT: Richard A. Callis, Administrator, Morehead Clinic, 234 Medical Circle, Morehead, Kentucky 40351. (606) 784-6641.

MEDICAL CLINIC IN CLOVERPORT, KY. Remodeled brick building of 2,400 square feet. Containing Doctor's office, reception, three exam rooms, emergency, x-ray lab, two baths. Central air conditioning, natural gas heat. Available immediately for physician seeking rural practice. Financing available. \$71,500. Ledridge Real Estate, Realtor. Hardinsburg, KY. (502) 756-6220.

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacterio. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are onemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure. Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

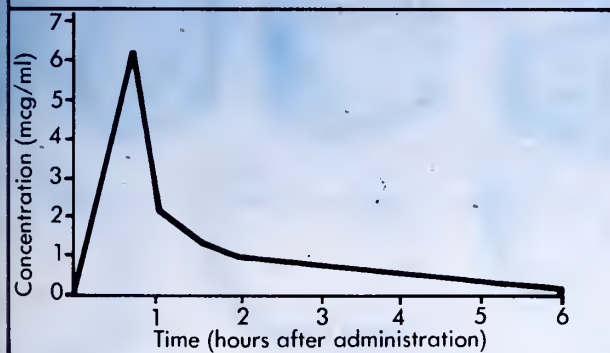
*Dosage should not result in a dose higher than that for adults. †depending on severity

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Philadelphia, Pa 19101

Half the dose
is absorbed in 9 minutes!
compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{1/2}$ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN-W®
(cyclacillin) 250 and 500 mg Tablets
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more than just spectrum

NEW
NAME

Application for Scientific Exhibits

1981 Annual Meeting
Ramada Inn/Bluegrass Convention Center

Kentucky Medical Association
Louisville, Kentucky September 22, 23, 24

1. Title of exhibit _____
2. Name(s) of exhibitor(s) _____
Address _____
Professional title _____
3. Institution if other than exhibitor _____
4. Amount of backwall footage required _____
(The draped booth has 4' side walls. This footage should not be included in backwall footage required.)
SHELF DESIRED? _____ (Table 2' deep X width of backwall footage)
5. Will summary printed matter be available or obtainable for the interested physician? _____
6. Indicate sources of assistance provided to you in connection with this exhibit _____

7. Has this exhibit been displayed before? If so, when & where? _____

8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

Date _____

Signature of Applicant _____

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before June 1, 1981.

- KMA provides, without cost to the exhibitor, one 2 ft. Table as shelving, bracket lights and a title sign.
- Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the Joseph T. Griffin Company, 818 West Main Street, Louisville, Kentucky 40202.
- *Commercial* exhibit materials and handouts are prohibited in the Scientific Exhibit area.
- Transportation and erection costs are the responsibility of the exhibitor.
- Exhibit must be attended during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.
- Equipment which will create noise must not be used during the general sessions and, at other times, must be controlled by head or earphones or a muffling device.

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category 4 credit.

Kentucky Medical Association



April 1-2, 1981, Executive West, Louisville

6:00 p.m. Social Hour—Cash Bar

7:00 p.m. Dinner

*Presiding—Dwight L. Blackburn, M.D.
Chairman, Board of Trustees
Kentucky Medical Association*

8:00 p.m. Welcome and brief meeting of
Jefferson County Medical Society
*Ronald N. Collier, M.D., President
Jefferson County Medical Society*



Collier



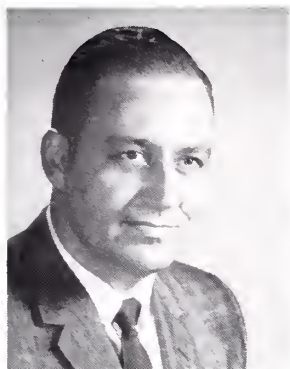
Nesbitt

Introduction of Keynote Speaker
*Frank R. Pitzer, M.D., President
Kentucky Medical Association*

Keynote Speaker
*Tom E. Nesbitt, M.D., Past President
American Medical Association*

Announcements and Adjournment
*Dwight L. Blackburn, M.D.
Chairman, KMA Board of Trustees*

THURSDAY, APRIL 2



Blackburn

8:00 a.m. Registration

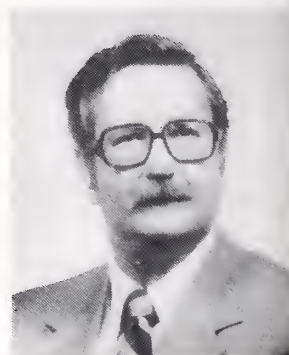
8:30 a.m. Welcome

*Dwight L. Blackburn, M.D., Chairman
KMA Board of Trustees*

8:40 a.m. Leadership Begins with a Four-Letter Word

Frank R. Pitzer, M.D., President, KMA

The key to leadership is involvement and participation by the practicing physician. Doctor Pitzer presents opportunities for physicians to effect changes in legislation and health planning.



Pitzer



Stewart

9:00 a.m. The Impaired Physician—It Affects Us All

*David Stewart, M.D., Chairman
KMA Committee on Physicians Health*

Doctor Stewart will discuss responsibilities of physicians to report and assist impaired physicians. Particular emphasis will be placed on methods of reporting and treating fellow physicians and responsibilities of the profession to the public.

9:30 a.m. Medical Ethics—Vested Interests or Moral Principles

Betty Jane Anderson, J.D., Assistant General Counsel, American Medical Association

B. J. Anderson has been extensively involved in the field of antitrust and health laws over the past 15 years. Attendees will be briefed on the background regarding recent changes in the AMA Code of Medical Ethics and the continuing FTC confrontation with AMA and various legal actions by other groups brought against AMA.



Anderson

10:00 a.m. Break



Marcus

10:15 a.m. Bulls, Bears, Caduceus—Economics for the 80's

*Morton Marcus, Research Economist
Indiana University*

Morton Marcus, nationally-known research economist, will present his economic predictions for the 1980's and their relation to medical practice and the health field.

11:00 a.m. Politics is a Contact Sport

*William G. Kenton, J.D., Speaker
Kentucky House of Representatives*

Speaker Kenton is serving his third consecutive term as Speaker of the House of Representatives. He will speak on the profession's role and responsibilities in lobbying with an emphasis on proper methods of persuasion to influence legislation.



Kenton



Trevey

11:15 a.m. Politics and Medicine—They Mix!

*John E. Trevey, M.D.
Kentucky State Senator*

Doctor Trevey, former campaign manager, State Representative and currently serving in the Kentucky Senate, will present methods for physicians to become actively involved in the elective process and the perception of the medical profession from the Legislator's viewpoint.

11:30 a.m. Questions and Answers

Entire Panel

11:50 a.m. Lunch

Introduction of Featured Speaker

Frank R. Pitzer, M.D., President, KMA

Featured Speaker

*James P. Low, CAE, President
American Society of Association
Executives*



Low

*Presiding—Ballard W. Cassady, M.D.,
President-Elect, Kentucky Medical Association*



Cassady

1:30 p.m. Point—Counterpoint



Scheen

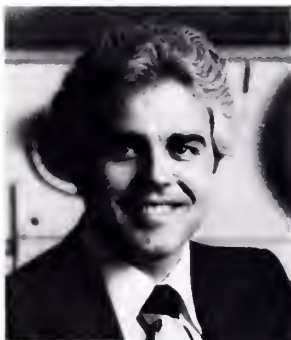
Secretary-Treasurer of KMA and frequent radio-tv guest S. Randolph Scheen, M.D., will moderate a panel discussion of physician-press relations. The panel will discuss the media's responsibility to report on medical issues of public importance and the public's right to know. Professional responsibilities of both parties will be brought into focus, particularly as they relate to fears of misquotes and quotes out of context and methods to obtain good public relations.

Panelists

*James M. Keelor, President and General
Manager, WAVE TV*

*Bob Schulman, News Critic Columnist
Louisville Times*

*S. Randolph Scheen, M.D., Secretary-
Treasurer, Kentucky Medical Association*



Keelor



Schulman

Carl Wedekind, Legal Counsel for the Kentucky Medical Association, will head a distinguished panel of legal experts in a wide ranging discussion of legal entanglements confronting the medical profession. The panel will discuss peer review, licensure laws, reporting of impaired physicians, professional liability and touch briefly on the future direction of the law as it relates to physicians and health care.

Wedekind



Panelists

Frank Haddad, Attorney at Law
John T. Ballantine, Attorney at Law
Betty Jane Anderson
AMA Assistant General Counsel
Carl L. Wedekind, Jr.
Legal Counsel, KMA



Haddad



Ballantine



Stumbo

2:45 p.m. The Grass Isn't Always Greener

W. Grady Stumbo M.D., Secretary
Department for Human Resources

W. Grady Stumbo, M.D., Secretary of DHR, will present a general overview of the Department and budgetary restraints affecting policies and programs. He will also touch on the 1982 General Assembly and discuss possible health legislation of interest to physicians and his views of the future for DHR.

3:15 p.m. HSA—SHCC and the CON Game

*Tony Goetz, Associate Dean for Planning
University of Kentucky Medical Center*

Mr. Goetz, former Executive Director of the Eastern Kentucky Health Systems Agency, will present a frank and open discussion of health planning agencies and their potential effect upon the practicing physician in the 1980's.



Goetz

3:40 p.m. Organized Medicine—Fact or Fantasy

4:10 p.m. Report of Breakout Session

Breakout Sessions

The Conference will break into groups and discuss the various problems facing organized medicine and suggest solutions to the entire Conference upon return.

4:30 p.m. Adjournment

The SYNERGY IN LEADERSHIP Conference is open to all members of the Kentucky Medical Association and their spouses. A registration fee of \$30.00 per person will be charged and will include dinner on April 1 and lunch on April 2. Lodging reservations may be obtained by contacting Executive West Motor Hotel at (502) 367-2251.

PLEASE REGISTER ME FOR THE SYNERGY IN LEADERSHIP CONFERENCE

- ☐ Member
☐ Spouse
- _____
- _____
- _____

Return to: Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, KY 40205

CME ACCREDITATION CATEGORY I - 7 HOURS

This program has been reviewed and is acceptable for 7 Prescribed hours by the American Academy of Family Physicians.

Special Meeting on Medicaid—
MA House of Delegates

March 1981
Volume 79
Number 3

The Journal Of The Kentucky Medical Association

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)® , please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma. may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50, available in trays of 10.

Postgraduate Opportunities

MARCH

- 9-11 Nutrition in Pregnancy, Health Sciences Center, Louisville**
- 13-14 Practical Management of Common Geriatric Problems, Rush-Presbyterian-St. Luke's Medical Center, Chicago
- 22-25 Southeastern Surgical Congress, Fairmont Hotel, New Orleans
- 27-28 Nutrition and Cancer Update, Health Sciences Center, Louisville**
- 30-31 Medical Aspects of Sports Symposium, Hyatt Regency Hotel, Lexington

APRIL

- 2 26th Annual Spring Clinical Conference, Lexington Clinic, Lexington
- 2-4 KY Ob-Gyn Society Spring Scientific Meeting, Hyatt Regency Hotel, Lexington
- 3-4 Practical Approach to Ophthalmic Genetics Hyatt Regency Hotel, Lexington*
- 10-11 Endocrinology for the Practicing Physician, Hyatt Regency Hotel, Lexington*
- 18 18th Annual Oropharyngeal Cancer Symposium, Health Sciences Center, Louisville
- 22-25 High Risk Pregnancy, Hyatt Regency Hotel, Louisville**

MAY

- 6-9 62nd Annual Meeting Virginia Society of Ophthalmology and Otolaryngology, Inc., Virginia Beach, VA
- 8 Pediatric Adolescent Gynecology, Executive West, Louisville**
- 21 Allergy Immunology, Hyatt Regency, Louisville**

JUNE

- 14-19 Sixth Annual Family Medicine Review, Hyatt Regency, Louisville**

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329

*Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Problems in the Human Life Cycle



**CARDIOVASCULAR
DISORDERS**

KMA Annual Meeting, September 22, 23, 24, 1981



USPS 280-700

Volume 79 • March 1981

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The Role Of The Health Department

“WE must be ready to abandon a path which we have followed for a time, if it seems to be leading to no good end.” (S. Freud). This principle is the basis for suggested reform of the State Health Department System in both structure and function. The change in structure would be mandated or coerced regional health departments placed in each AD district, and the change in function would be the care of chronic disease.

There are a number of questions that need to be answered before this scenario is put into action.

1. Regionalization—Is this in reality centralization with little or no local control? Already physicians who have been active on county boards of health are being replaced because of disagreeing with present policies in Frankfort. Also physician input will be markedly diluted with the establishment of regional boards that may meet at inconvenient times, miles from home, and well attended by selected personnel.

2. Direction of Function—When the main function (control of infectious disease) is no longer the problem that it was in the past, would it be better to reduce the service and the associated cost or expand the service (Chronic Disease) with increased cost? This change might add another dimension to health care but may also duplicate and fragment present services available.

3. Funding—One of the main reasons for the change is to establish a system that would be eligible for federal programs and funding. The regulations that accompany such funding may be not only difficult to live with but counter productive especially on a local basis. Take the ambulance service in the state: once costly regulations were established federal money has been withdrawn. How will the program be financed? Increases in local taxes will be the probable answer. The present Federal Administration is promising block grants to the states to be distributed with less federal regulation. Wouldn't it be better to wait and see?

4. Once set into motion and with a change in leadership, as frequently happens in Frankfort, I can visualize a series of health clinics run by Nurse Practitioners directed by a regional health officer, doing the delivery of “primary” health care. I would ask each of you who read this to view how these changes would affect your county, your practice, and your patients. Consider a quote from *Discovery of Freedom* by Rose Wilder. “Living is fighting for life, and when anyone does not know this fact, someone is doing his fighting for him.” Examine the facts and become involved.

CHARLES B. SPALDING, M.D.
KMA VICE PRESIDENT

Summer Cruise/Conferences on Legal-Medical Issues



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23 CME CREDITS
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Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

- Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
- Branchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
- Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
- Acute exacerbation of chronic bronchitis caused by *H. influenzae*

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacterio. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacteriologic eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day† q.i.d.†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day† q.i.d.†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

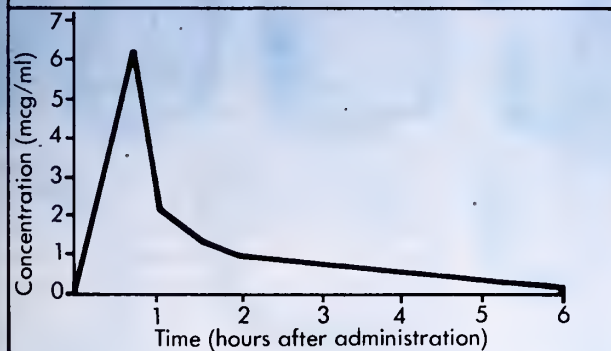
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Hyperparathyroidism in a Community Hospital

C.H. NICHOLSON, M.D., L. RAYMOND REYNOLDS, M.D. AND THOMAS J. GOODENOW, M.D.

Eighty patients with primary hyperparathyroidism were treated in a community hospital. This study indicates that hyperparathyroidism can be managed safely and successfully at a community hospital.

P RIMARY hyperparathyroidism is an increasing surgical problem. With the advent of automated chemistries, the number of recognized patients has dramatically increased. Previously, most of these patients were treated at large medical centers.^{1,2} This paper discusses the 20-year experience with parathyroid surgery at a community hospital in Kentucky.

During the years 1960 through 1979, 80 patients had surgery for primary hyperparathyroidism at St. Joseph Hospital in Lexington. Eighty percent of the procedures were done by one of the authors. Seventy-four patients were found to have adenomas and four patients had hyperplasia. In two instances, five parathyroid glands were found, with the tumor involving the fifth gland located within the thymus. Two patients had multiple adenomata. Two patients were

found to have an associated thyroid carcinoma. After one unsuccessful exploration, re-operation was successfully carried out in one patient after selective venous sampling for immunoreactive parathyroid hormone indicated location of a left neck adenoma. The length of the operative procedures varied from 30 minutes to four and one-half hours.

The number of surgical procedures rapidly increased in the 1970's, chiefly because of hypercalcemia discovered on automated chemistries (Table I). Seventy-five percent of the patients were female, and the majority were between 40 and 70 years of age. Over the last two decades osseous involvement has been uncommon probably because of earlier detection of hypercalcemia.

Primary hyperparathyroidism is second to malignancy as a cause of hypercalcemia. Symptoms of elevated blood calcium in our patients included polydipsia, polyuria, renal stones, muscular aches

HYPERPARATHYROIDISM—Nicholson, Reynolds and Goodenow

and pains, anorexia, nausea, constipation, lethargy and neurologic symptoms of depression and psychosis. However, one out of five patients were asymptomatic. (Table II). Hypertension was also frequently noted, but this usually persisted after correction of the hyperparathyroidism.

Diagnosis required documentation of elevated serum calcium on **repeated** occasions. There should be no clinical or laboratory evidence of other causes of hypercalcemia, such as malignancy, sarcoidosis, and hypervitaminosis D. It is helpful to have an elevated serum immunoreactive PTH level with a low or low normal serum phosphorus and high serum chloride. In this series calculation of the tubular re-absorption of phosphorus was not found to be necessary. However, measurement of 24-hour urine calcium excretion proved useful in detection of some cases of sarcoidosis and familial hypocalciuric hypercalcemia.

A chest x-ray should be done to search for sarcoidosis or PTH-producing bronchogenic carcinoma. A normal blood count and serum protein electrophoresis will screen for multiple myeloma. Intravenous urography helps to exclude renal cell carcinoma which is the second most common malignancy to produce excessive PTH.

At exploration most of the parathyroid adenomata were located in the inferior pole position. Several were found in unusual locations. (Table III)

Exploration of all parathyroid areas is done before removal of an obvious parathyroid adenoma. A biopsy of an apparently normal parathyroid gland is done to exclude hyperplasia. If hyperplasia is found, then three and one-half of the glands are removed. Surgical technique must be meticulous with careful attention to preservation of the recurrent laryngeal nerve. There must be no blood staining of the tissue.

With perseverance the surgeon will usually find abnormal tissue. Patients should be scheduled at a time when the surgeon has ample time and is not rushed. The patient must have the benefit of the surgeon's intention to find abnormal tissue; therefore, it is imperative that the surgeon be convinced the patient has hyperparathyroidism and is in need of an operative procedure.

A generous transverse collar incision is made approximately 2 cms. above the clavicle. It is usually not necessary to divide the strap muscles, but they are opened widely from the thyroid cartilage to the sternal notch. The middle thyroid vein is divided, and on occasion the superior thyroid vessels are also divided for better mobilization of the gland. The inferior thyroid artery and recurrent laryngeal nerve are identified and the tissue around the recurrent nerve is gently dissected, spreading the tissues with a small hemostat. Counter traction is applied by the assistant to the thyroid gland which aids in the dissection. Electric cautery should not be used close to the recurrent nerve. Usually the tumor is found within 2 cms. of the junction of the nerve and the inferior thyroid artery. If, after exploration, a solitary enlarged gland is found then biopsy of normal gland will aid the pathologist in differentiation of hyperplasia and adenoma.

Adenomas located in the superior pole position may be located close to the recurrent nerve or behind the superior pole of the thyroid. If the tumor is not found in the usual location then attention is turned to the esophageal-tracheal groove, the carotid sheath and the superior mediastinum. The superior mediastinum can often be explored through the cervical incision. Palpation of the thymic tissue against the sternum can on occasion find an abnormality. If no adenoma is found then a hemithyroidectomy should be considered on the side of the missing parathyroid gland. If after a diligent search no abnormal tissue is found, the wound is closed and if significant hypercalcemia persists the patient is studied by selective venous catheterization for determination of parathyroid hormone at different areas in the neck and chest.

In this series of 80 patients the cause of the hypercalcemia was found and corrected in 98%. Two patients required two separate operations. In only one patient was abnormal tissue not found. This patient remained normocalcemic. Therefore, all operative patients are normocalcemic and have remained so to date.

Complications were minimal. The single case of vocal cord paralysis cleared within two months. One wound hematoma required evacuation. Only

HYPERPARATHYROIDISM—Nicholson, Reynolds and Goodenow

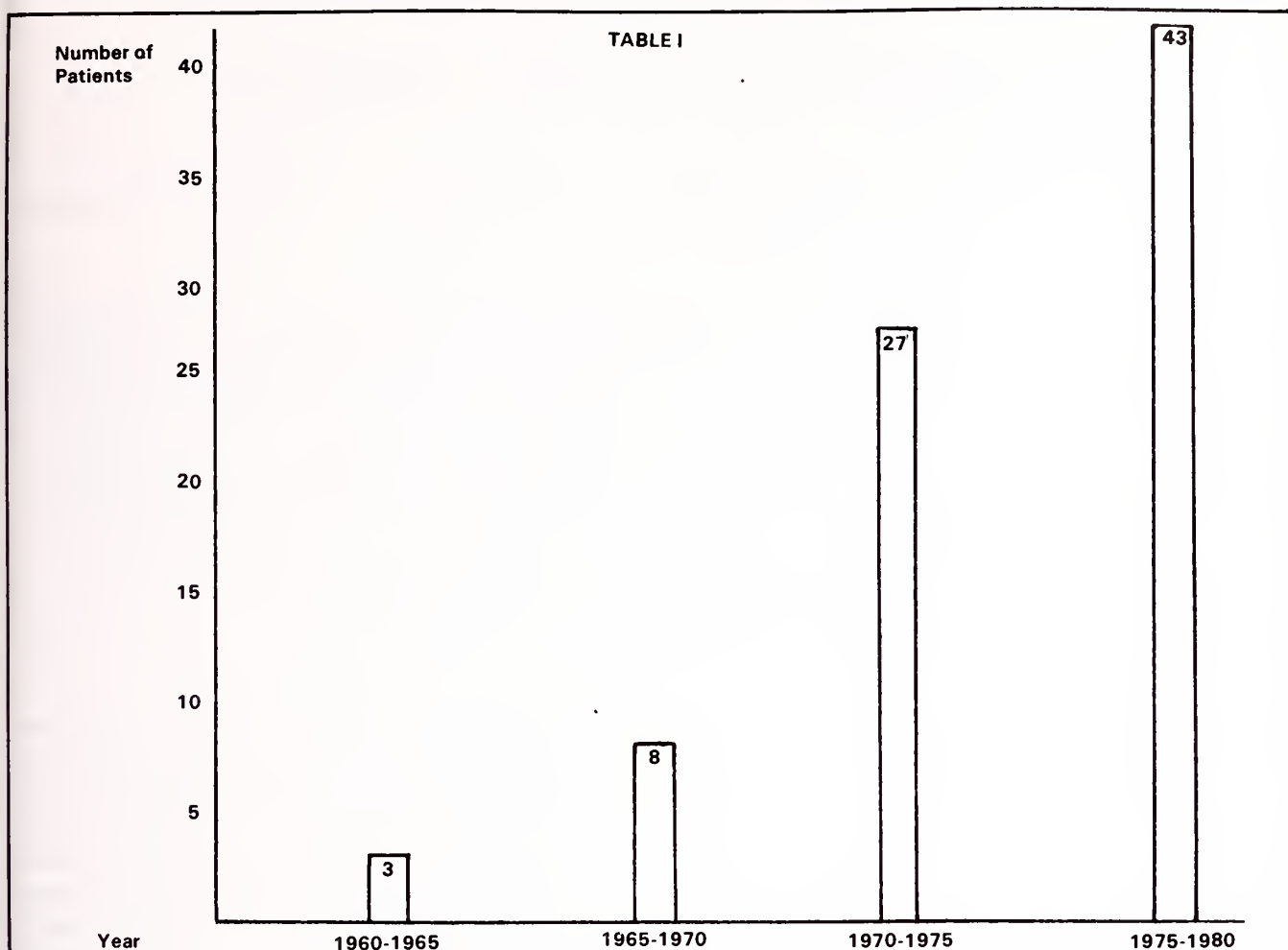


TABLE II	
Symptoms	% of Patients
Renal	33%
Gastrointestinal	22%
Asymptomatic	19%
Musculoskeletal	14%
Neurological	12%

TABLE III NUMBER & LOCATION OF ADENOMAS			
Right Upper	11	Left Lower	11
Right Lower	17	Left Lower	26
	Mediastinal		4
	Multiple		2
	Hyperplasia		4
	Carotid Sheath		2
	Not Stated		2

one patient required longterm treatment of post-operative hypocalcemia. A single patient expired. She had been comatose for several days in another hospital before transfer. Five days after successful treatment of hypercalcemic crisis and removal of a large parathyroid adenoma, she expired from multiple pulmonary emboli.

Summary

In this experience with 80 patients requiring surgery for hyperparathyroidism, abnormal tissue was removed in 79 patients. There has been no

recurrence with removal of a solitary adenoma or in the four patients with hyperplasia. In difficult cases, it may be advisable to carry out cryopreservation of parathyroid tissue for later autotransplantation if hypoparathyroidism develops.³ This study indicates that parathyroid surgery can be successfully carried out in a community hospital.

References 1. Cope O.; "The Story of Hyperparathyroidism at Massachusetts General Hospital." *N Engl J Med* 274:1174-1182, 1966. 2. Edis AJ, Beshar ON, Van Heeden JA, et al: "Conservative Versus 'Liberal' Approach to Parathyroid Neck Exploration," *Surgery* 82:466-473, 1977. 3. Brennan MF, Brown EM, Spiegel AM, et al: "Autotransplantation of Cryopreserved Parathyroid Tissue in Man," *Ann Surg*, 189:139-142, 1979.

Gastroesophageal Reflux in the Morbidly Obese

C. DANIEL PROCTER, M.D., RICHARD M. BELL, M.D., BRACK A. BIVINS, M.D. AND WARD O. GRIFFEN, JR., M.D., Ph.D.

This report is on 20 patients who were morbidly obese and had hiatal hernia. They also had gastroesophageal as evidenced by symptoms of heartburn,⁹ epigastric or substernal pain,⁴ or reflux on upper gastrointestinal series.⁷ The patients underwent gastric bypass utilizing the Roux-en-Y reconstruction. Relief of symptoms was prompt and dramatic in all but one patient, and the patients experienced this relief before significant weight loss had occurred. Moreover, as their weight loss has continued, they still are asymptomatic with regard to reflux. It is concluded that hiatal hernia and gastroesophageal reflux in morbid obesity is not a contraindication to gastric bypass provided by Roux-en-Y anastomosis is used.

Introduction

OBESITY is recognized as a factor which contributes to gastroesophageal reflux. In fact, in the non-operative management of patients with symptomatic reflux, weight loss is an integral part of the therapy. The morbidly obese do not escape from this problem nor the often associated anatomical derangement of hiatal hernia.

In the course of treating almost 400 patients with morbid obesity using the gastric bypass technique with a Roux-en-Y reconstructive method, we have had the occasion to manage 20 patients who complained of heartburn, epigastric or substernal pain or who had obvious reflux on upper gastrointestinal series with or without hiatal hernia. These patients form the basis of this report.

Clinical Material

To study the effect of gastric bypass with Roux-en-Y anastomosis on pre-existing hiatal hernia and esophageal reflux, the charts of all patients undergoing gastric bypass at this institution were reviewed, and 41 patients were found whose pre-operative upper gastrointestinal (UGI) series

showed a hiatal hernia. After excluding those patients without either radiologically demonstrable esophageal reflux or symptoms attributable to the hiatal hernia, 20 patients remained for evaluation.

The demographic information is given in Table I. There were 16 females and four males, with an average age of 41. The average weight was 124 kg; the average height was 168 cms. All had the usual history of obesity and various unsuccessful attempts at weight reduction.

Thirteen patients had no radiologic evidence of reflux, but had symptoms relative to reflux, *ie*, "heartburn," indigestion, epigastric "gassy feeling" or burning. Four patients had radiographic evidence of reflux, but were asymptomatic. Three patients had both radiographic evidence of reflux and were symptomatic. Two patients, both in the symptomatic group without radiographic evidence of reflux, underwent UGI endoscopy and in both cases the hernia was verified, but no esophagitis was present (Table II).

All patients underwent gastric bypass with the construction of a 45 to 60 dl upper pouch with complete stapling of the stomach. A few of the earlier cases involved transection of the stomach between two staple lines; most of the cases were done with the placement of a single staple line completely across the stomach using the TA 90

From the Albert B. Chandler Medical Center, University of Kentucky, Lexington, KY

GASTROESOPHAGEAL REFLUX—Procter et al

TABLE I
DEMOGRAPHY

# PATIENTS	20	
MALE	4	
FEMALE	16	
WEIGHT (Kg)	124	(Range 98-182)
HEIGHT (Cm)	168	(Range 152-191)

TABLE II
SYMPTOMS AND FINDINGS
IN TWENTY PATIENTS

HEART BURN	9
EPIGASTRIC OR SUBSTERNAL PAIN	4
HIATAL HERNIA	20
GASTROESOPHAGEAL REFLUX	7
ESOPHAGITIS (ENDOSCOPY)	0

instrument and 4.8 mm staples. The upper pouch was drained with a retrocolic Roux-en-Y gastrojejunostomy providing a stoma size of 1.2 cm.

One postoperative complication was seen in one patient, a wound infection. The weight loss has been a mean of 8.1 Kg (range 4.3 to 51.1 Kg) on an average follow-up of seven months. There were no operative deaths.

Postoperatively a nasogastric tube is left in place for 48 to 72 hours. After the nasogastric tube is removed, the patients are not permitted to have any oral intake for another 24 hours and then they begin on clear liquid diet which is progressed to a standard post-gastric bypass diet within the next 48 hours. All patients go through a learning process of filling the gastric pouch too rapidly which usually produces some substernal pain which is relieved by vomiting. Once the patients learned how to eat with the small gastric pouch, 95% of the patients (19/20) either became or remained asymptomatic after gastric bypass. Five patients underwent postoperative UGI examinations as outpatients, four for other gastrointestinal problems and one for persistent reflux symptoms. The first four showed no evidence of hiatal hernia or reflux, but the last showed free gastroesophageal reflux and hiatal insufficiency. Two patients underwent UGI series and endoscopy which showed no hiatal hernia or reflux.

From this data, it seems evident that gastroesophageal reflux with or without hiatal hernia is not an absolute contraindication to gastric bypass provided a Roux-en-Y anastomosis is used. Only one patient remained symptomatic and had radiographic evidence of reflux. Because of the complaint of occasional bilious vomiting in this patient the question is raised as to whether the Roux-en-Y limb was too short to prevent bile regurgitation.

Discussion

According to the First Health and Nutrition Examination Survey, United States (1971-1974), 4.9% or 2.8 million men between the ages of 21 and 74 years are severely obese. It likewise reports an incidence of 7.2%, or 4.5 million in women.⁶ As experience is gained in dealing with the obese patient and data regarding morbidity and mortality in the obese becomes available, clinical impressions have become facts. There is a twelve-fold increase in mortality for the obese person in the age group 25 to 34 years, a sixfold increase for those 35 to 44 years, and a smaller ratio, yet significantly increased mortality, at older ages.² Obese individuals also have been shown to have a faster rate of atherogenesis, and, when combined with risk factors such as hypertension and smoking, a higher incidence of ischemic heart disease. Hypertension and diabetes are likewise more prevalent in the obese person. Operative morbidity and mortality in the obese is increased. Additionally less serious conditions are seen with increased frequency in obesity: arthritis, venous stasis disease, tendency toward thrombophlebitis and gastroesophageal reflux. The one serious and frequently fatal entity which can be directly related to obesity is respiratory insufficiency known as the Pickwickian syndrome.

When it became evident that a variety of non-operative approaches to weight reduction, *eg* diets, diet pills, psychotherapy, etc., produced only temporary results, surgical intervention was explored. Jejunioileal bypass, a relatively simple procedure with few immediate postoperative complications, has been performed for 15 years. While effective in weight reduction it has produced a number of long term sequelae which have made it less acceptable as a procedure for morbid obesity.

GASTROESOPHAGEAL REFLUX—Procter et al

Meanwhile Mason and Ito⁷ proposed the gastric bypass as an alternative operation for the morbidly obese. It is a technically harder procedure which is complicated by more frequent immediate problems than the small bowel bypass. However, once it was learned that pouch size and anastomotic diameter were extremely important in producing adequate weight loss, gastric bypass became an acceptable procedure for morbid obesity. Modifications of the Mason gastric bypass have included the antecolic positioning of the gastrojejunostomy by Alden¹ and the Roux-en-Y anastomosis.⁴

Hermreck et al⁵ and Printen⁸ have stated that pre-existing reflux esophagitis and hiatal hernia with reflux are a contraindication to gastric bypass. The standard gastric bypass, as proposed by Mason and modified by Alden wherein a loop gastrojejunostomy is performed, probably is contraindicated for patients with gastroesophageal reflux. In this instance the bile and pancreatic juice are brought close to the gastroesophageal junction and should there be reflux of those substances from the jejunum into the small gastric pouch, then there would be bile reflux onto the esophagus. Bile is at least as irritating as hydrochloric acid on the esophagus and may even be more so. Likewise, gastroplasty³ may be contraindicated in patients with reflux esophagitis. Gastric secretion in the distal stomach is likely to have a high hydrogen ion content and if this can go through the gastroplasty into the upper pouch and then onto the esophagus, reflux symptoms are likely to continue.

In contrast, the Roux-en-Y anastomosis which in our series is performed at least 35 cms. distal to the gastrojejunostomy means that the bile and pancreatic juice enter the gastrointestinal tract far removed from the upper gastric pouch. There is very little evidence of any sort of bilious reflux into the gastric pouch and therefore it is not surprising that the patients experience rapid relief of their symptoms of heartburn. Moreover, the cardiac portion of the stomach is known to contain few parietal cells, and therefore the acid content of the upper gastric pouch tends to be quite low. Therefore, there is little acid reflux onto the

esophagus and again the patients should experience rather prompt relief of their symptoms.

Further evidence of the low acid content of the upper pouch is the fact that the incidence of marginal ulcer in patients with Roux-en-Y gastric bypass, as well as the standard gastric bypass as proposed by Mason, has been extremely low. If there was a great deal of acid produced by the upper gastric pouch, marginal ulcers would be expected to be a major complication of the operation. In fact, in our own series, it has occurred in less than 1% of the patients and that is about the same incidence as reported by Mason.

From these results, we would conclude that patients who are morbidly obese and who have reflux esophagitis either symptomatically or documented by X-ray or endoscopy should be considered for a gastric bypass procedure which utilizes the Roux-en-Y technique of anastomosis. The removal of the bile and pancreatic juice from proximity to the gastric pouch as well as the low acid produced by the upper pouch is such that the operation should give the patients dramatic and prompt relief.

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Health Care '81

PROVIDERS as well as consumers anxiously await the posture of the new federal administration regarding health care in this country. Undoubtedly any changes will be influenced by the present uncertainties of the economy, the stated conservative position of the new Executive Branch, the Republican controlled Senate and the still Democrat controlled House of Representatives. Can we anticipate reductions in research funds derived from the National Institutes of Health? Will there be greater controls and limitations on Medicaid and Medicare funds? Will there be an attempt to return a greater element of the health insurance domain to the private carriers? Will there be a greater demand for cost-effective medical care?

Despite some evidence of decrease in federal spending and governmental control, one must not anticipate wholesale changes in the present governmental attitude toward health care. While some changes seem desirable, the trend of the past few decades will not be turned around overnight. Senator Kennedy, long an advocate of greater governmental input and control of health care delivery, is no longer chairman of the powerful Senate Labor and Human Resources Committee. However, he still remains a poignant force on this committee as ranking minority member.

It would be difficult to believe that our newly elected and appointed officials would not place health care high on their priority list. If changes in governmental attitude towards health care are forthcoming let us hope they are for the better.

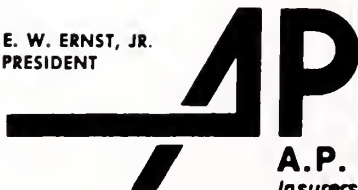
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WHEN riots were unthinkable.
WHEN you left the front doors open.
WHEN socialism was a dirty word.
WHEN ghettos were neighborhoods.
WHEN the Flag was a sacred symbol.
WHEN criminals actually went to jail.
WHEN you weren't afraid to go out at night.
WHEN taxes were only a necessary nuisance.
WHEN a boy was a boy and dressed like one.
WHEN a girl was a girl and dressed like one.
WHEN the poor were too proud to take charity.
WHEN the clergy actually talked about religion.
WHEN clerks and repairmen tried to please you.
WHEN college kids swallowed goldfish, not acid.
WHEN songs had a tune and the words made sense.
WHEN young fellows tried to join the Army or Navy.
WHEN people knew what the Fourth of July stood for.
WHEN you never dreamed our country could ever lose.
WHEN a Sunday drive was a pleasant trip, not an ordeal.
WHEN you bragged about your hometown and home state.
WHEN everybody didn't feel entitled to a college education.
WHEN people expected less and valued what they had more.
WHEN politicians proclaimed their patriotism and meant it.
WHEN everybody knew the difference between right and wrong.
WHEN things weren't perfect — but you never expected them to be.
WHEN you weren't made to feel guilty for enjoying dialect comedy.
WHEN our Government stood up for Americans anywhere in the world.
WHEN you knew that the law would be enforced and your safety protected.
WHEN you considered yourself lucky to have a good job and proud to have it.
WHEN the law meant justice and you felt a shiver of awe at the sight of a policeman.
WHEN you weren't embarrassed to say that this is the best country in the world.
WHEN America was a land filled with brave, proud, confident, hardworking people!

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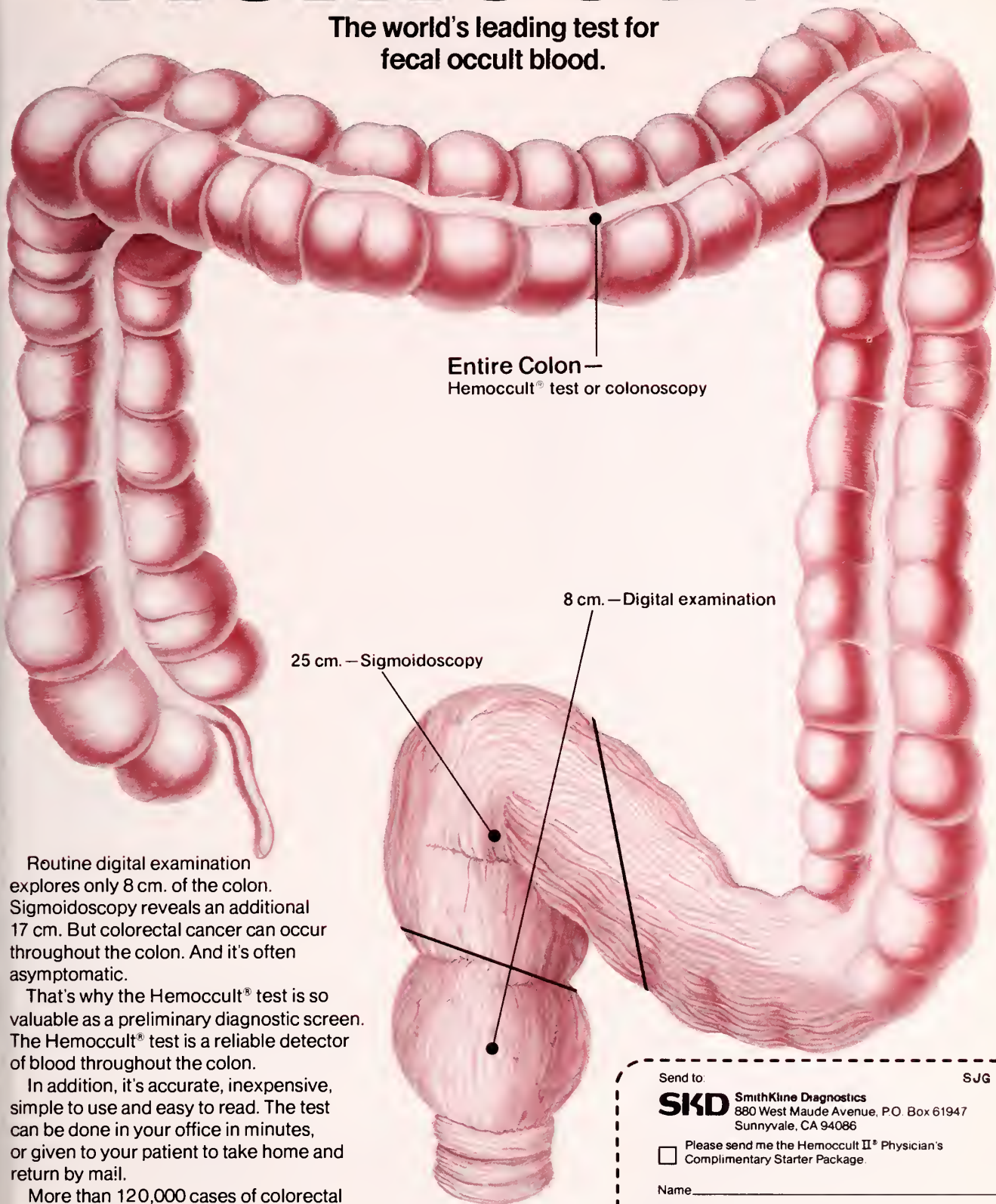


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Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions, or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly, debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients; some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants.

See WARNINGS.



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Short Course Chemotherapy For Tuberculosis

Standard therapy for tuberculosis consists of the use of two or three antituberculous agents (bacteriostatic and bacteriocidal) for 18 to 24 months. Short course chemotherapy is a new method of treating tuberculosis. The goal of this therapy is the complete eradication of the tubercle bacillus in the shortest time possible with the use of **only** bacteriocidal drugs. The advantages of short course chemotherapy are that the regimen is effective, significantly reduces the duration of therapy and is more economical. In addition, this form of therapy holds the promise of reducing treatment failures by improved patient compliance, reducing disease relapses by more complete eradication of organisms, and decreasing the problem of drug resistance.

The tubercle bacillus is an obligatory aerobe with a slow rate of growth and a high mutation rate. In the diseased patient, the organisms exist in a number of micro-environments which alter their growth and replication rates, and hence their response to medications. Organisms in macrophages (acid medium) and solid caseous lesions (alkaline medium) exist in an environment with a low O₂ tension. Their replication rate is slow and the population of organisms is small. Open cavities have an alkaline medium with a high O₂ tension with the population of organisms being large and fast replicating. Bacteriocidal drugs (Isoniazid, Rifampin, Streptomycin, and Pyrazinamide) are capable of eradicating both the small pool of slower growing organisms in macrophages and caseous foci, and the larger pool of fast replicating organisms in cavities. Streptomycin is bacteriocidal to the cavitory pool of bacilli, whereas Pyrazinamide is most active on the intracellularly located organisms. Isoniazid and Rifampin are bacteriocidal to both pools of replicating or-

ganisms and therefore are the drugs most commonly used for short course chemotherapy.

Short course chemotherapy consists of the administration of Isoniazid and Rifampin for a minimum of nine months. In adults, initial therapy consists of 300 mgm of Isoniazid and 600 mgm of Rifampin given once daily for one or two months. Thereafter, the maintenance phase consists of the same medications being given twice weekly in the dosages of 900 mgm of Isoniazid and 600 mgm of Rifampin. The medications should be given for at least six months after sputum cultures have become negative. Since 95% of patients have negative cultures by three months of therapy, the total duration of therapy is usually nine months. Sputum cultures should be studied monthly during therapy and the patient should be observed for recurrent symptoms for one year after therapy is completed.

In the largest series reported in the U.S., therapy was 98% effective and disease relapses occurred in only 0.5%. Treatment failures were low at 1%, suggesting improved patient compliance, and the incidence of drug resistance was felt to be reduced. Although both Isoniazid and Rifampin are potential hepatotoxins, hepatitis was a problem in only 3% of patients. In addition, the cost of short course chemotherapy was under \$100 as opposed to \$400 or higher for standard chemotherapy.

Dennis J. McDonagh, M.D.

References Dutt AK, Stead WW: Chemotherapy of tuberculosis for the 1980's. *Clinics in Chest Medicine* 1:243-252, 1980. Dutt AK, Stead WW: Short Course Treatment Regimens for Patients with Tuberculosis *Arch Intern Med* 140:827-829, 1980

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Medicaid in Kentucky

Medicaid has grown enormously in the past decade, both in the size of eligible population and the scope of covered services. Currently, more than 70% of Medicaid dollars is spent for institutional care. In the next two years, Medicaid could run a deficit of \$80 million if issues are not faced.

MEDICAID is often misunderstood by both the public and medical providers. This article has been written to outline the purposes and current problems in the Kentucky Medical Assistance Program (KMAP), to dispel some of the misconceptions that have developed over the past two decades and to track the evolution of today's KMAP from its predecessor, the Kentucky Medical Care Program (KMCP).

History of the Kentucky Medical Assistance Program

Who is covered under Medicaid?

Kentucky's first step in subsidizing medical care for indigent citizens began in March 1960 with the passage of the Medical Assistance Act. This move toward tax-supported health care was precipitated by the federal Kerr-Mills Act, which expanded federal cost-sharing for the health needs of the indigent.

Further impetus for Kentucky's efforts was provided by a 1957 re-

port commissioned by Governor Albert Chandler titled, *A Long Range Plan: Medical Care for Indigent Persons in Kentucky*. This far-reaching study called for a "just and equitable health care plan that would spread the cost of health care to the indigent among all taxpayers."

Fiscal realities, however, limited eligibility to only about 40% of those who were actually medically needy. Although the commission report claimed that one out of eight Kentuckians (12.5%) was unable to pay the cost of necessary medical care, less than 5% of the state's population was actually covered by the Kentucky Medical Care Program (KMCP), which began January 1, 1961. Under KMCP, the eligible population consisted of persons already receiving grant monies from the state, such as Old Age Assistance, Aid to Families with Dependent Children and Aid to the Needy Blind. Elderly persons with minimal income were also eligible for medical assistance.

In 1965, federal cost-sharing for medical assistance was substantially expanded under the Medicaid pro-

gram. The ambitious goal of Medicaid was "to provide the poor with the same access as the rich to mainstream medical care." The Kentucky Medical Assistance Program was implemented on July 1, 1966 in order for more Kentuckians to qualify for Medicaid assistance.

Two broad classes of eligibility were created under Medicaid. The federal legislation mandated that individuals receiving government cash assistance automatically be eligible for Medicaid, and this group is called the "categorically needy." These are individuals who are aged, blind, disabled or members of families with dependent children.

Being poor is not reason enough to receive a cash benefit from welfare resources; one must be both poor and "categorically needy." But for those who do not fit a "categorical need" definition but are poor, plus those whose resources are too great to qualify for cash payments, a "spend-down" provision allows an individual with costly medical bills to qualify for Medicaid, providing his net income is sufficiently low after medical expenses are deducted. For exam-

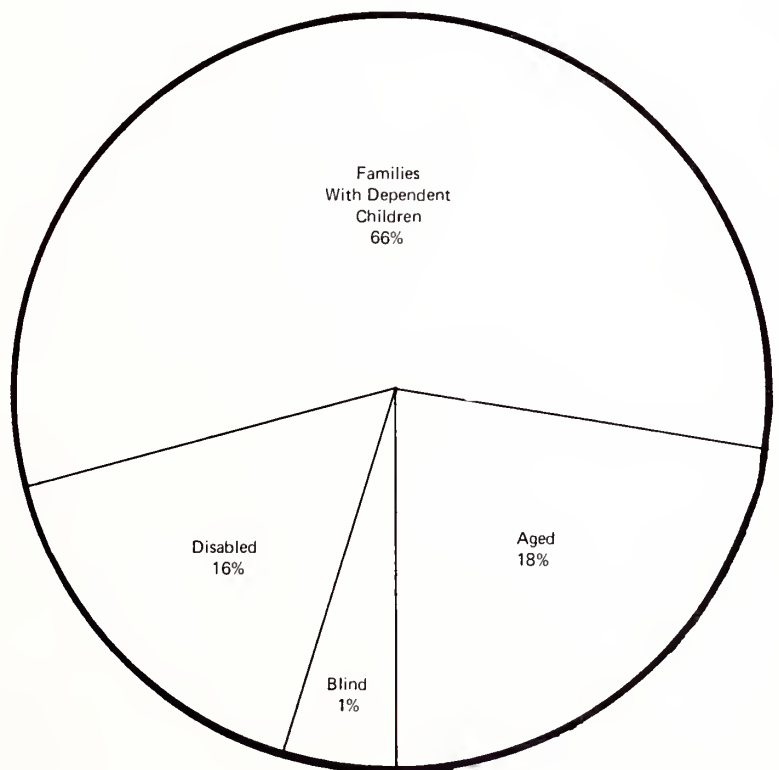
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ple, a blind person with a gross income of \$500 monthly normally would not qualify for cash assistance. But, if he had skilled nursing home costs of \$350 each month, he could receive a Medicaid card.

As a consequence of this program expansion in 1965, the proportion of Kentuckians eligible for Medicaid increased to more than 7% of the total population in the first full year of KMAP. Today, there are approximately 320,000 citizens, or 9% of the state's population, eligible for Medicaid at any given point in time. (However, due to the continuous flow of individuals on and off public assistance over a year's time, roughly 13% of the total population will be eligible for Medicaid during at least a portion of any given year.)

It should be emphasized that Medicaid does **not** reach all of those who are in need. More than 17% of Kentucky's population is below the poverty level, so there are at least 300,000 poor people who do **not** qualify for and then benefit from Medicaid assistance even though it is financially difficult for them to pay their medical bills. Medicaid

Fig. 1
DISTRIBUTION OF KENTUCKIANS
ELIGIBLE FOR MEDICAID



does cover most of the extremely poor individuals in the state (*ie*, those below roughly two-thirds of the federal poverty level who are aged, blind, disabled or in a family with dependent children).

As shown in Figure 1, slightly less than two-thirds of eligible persons come from families with dependent children, while slightly less than one-fifth are aged, one in six is disabled and only 1% are blind.

What is covered by Medicaid?

When KMCP first began in 1961, only essential medical services were covered by the program. Physicians, hospitals, dentists, pharmacists and nursing homes were the only providers whose services could be reimbursed by the state. The cost to provide such service was relatively modest.

However, when Medicaid was passed in 1965, the goal was for states to offer "comprehensive care for substantially all individuals" by 1975. To achieve this goal, KMAP added lab and x-ray services, home health, community mental health and transportation services by fiscal year 1972. This increase in services was reflected in an increase in costs.

Eight years later, in 1980, the array of available Medicaid services had been further expanded to include intermediate care, primary care, early and periodic screening and diagnosis, family planning, hearing and vision services and renal services. Now, a Medicaid recipient has available a very broad array of physical and mental health services ranging from preventive care to highly sophisticated acute care, as well as chronic care at home or in an institution. Consequently, we now pay \$943 per year for the medical needs of each eligible person.

Figure 2 shows that slightly over half of Medicaid costs stem from services required in order for the state to receive federal funds. Nearly half of the expenditures for man-

dated services are for inpatient hospital services, while intermediate care takes up 75% of the expenditures for optional services.

Who pays for Medicaid?

Due to its relatively low per capita income, Kentucky received more than two-thirds of its Medicaid funding from federal sources, a higher share than all but 10 other states. However, the federal share has steadily declined with time (from over 80 percent just 12 years ago to 68 percent in 1979). In the future, Kentucky will have to pick up an ever-increasing portion of the Medicaid burden.

Where the Medicaid Money Goes

Distribution Among Medicaid Providers

There are nearly 7,000 separate Medicaid providers in Kentucky and roughly one-half are physicians. As shown in Figure 3, 70% of Kentucky's Medicaid dollars are currently spent for institutional services, rising sharply over the past 10 years. Ten years ago, only 51% of total Medicaid dollars were absorbed by institutional costs. In dollars, that has meant a surge in growth from \$34.2 million in 1970 to \$146.3 million in 1979

Currently, the largest category of expenditures is for intermediate care, which accounts for one of every three Medicaid dollars spent. There are less than 8,000 KMAP patients in intermediate care facilities (ICFs) at any given time, but

Fig. 2
SERVICES AVAILABLE UNDER MEDICAID

	Type of Service	FY 80 Expenditures (in millions)	Percent Distribution
Federally Mandated Services	Inpatient Hospital	\$ 77.6	25.6%
	Physician	\$ 34.5	11.4%
	Skilled Nursing	\$ 28.0	9.3%
	Outpatient Hospital	\$ 12.1	4.0%
	Home Health	\$ 3.4	1.1%
	Family Planning	\$ 1.7	0.6%
	Screening	\$ 0.8	0.3%
	Lab and X-Rays	\$ 0.1	*
	Dental (under age 21)	\$ 7.2*****	2.4%
	Transportation	\$ 2.4	0.8%
	Vision Care (under age 21)	\$ 1.1	0.4%
	Hearing Care (under age 21)	\$ 0.1	*
	SUBTOTAL:	\$168.8	55.8%
Optional Services	Intermediate Care	\$100.8	33.3%
	Pharmacy	\$ 14.3	4.7%
	Dental (over age 21)	\$ 1.0*****	0.3%
	Medicare Premiums	\$ 6.8	2.2%
	Community Mental Health	\$ 7.9	2.6%
	Mental Hospitals**	—	—
	Renal Services***	—	—
	Primary Care	\$ 2.9	1.0%
	Podiatry****	—	—
	SUB TOTAL:	\$133.7	41.2%
	GRAND TOTAL:	\$302.5	100.0%

*Less than 0.1%

**Included in inpatient hospital

***Included in inpatient and outpatient hospital

****Included in physician

*****Estimated

since the average annual cost of care is over \$8,500 per patient, total expenditures are considerable.

The annual cost per patient in skilled nursing facilities (SNFs) is nearly \$14,000 a year. Because there are only about 2,300 patients statewide, SNF accounts for only one-eighth of all Medicaid dollars. It should be noted that eight years ago, SNF absorbed nearly one-fourth of the Medicaid budget, but subsequently its share has dropped substantially due to large sums of money going to ICF care.

Inpatient hospital services now account for slightly more than one-fourth of the Medicaid budget, compared to nearly one-third just eight years ago. Now the cost per stay runs more than \$1,100 for the average Medicaid patient.

Currently, less than one of eight Medicaid dollars goes directly to physicians. This is somewhat misleading because there are many hospital based physicians who are indirectly paid by Medicaid funds. Roughly 13.2% of all Medicaid dollars go to physicians when both direct **and** indirect dollars are counted. The average Medicaid payment per outpatient procedure is more than \$11, while the average inpatient procedure exceeds \$35.

Drugs account for about 6% of all expenditures, the average prescription costing nearly \$5. Nearly half of the average cost per prescription is the \$2.35 dispensing fee paid to pharmacists for filling each prescription.

Distribution Among Medicaid Users

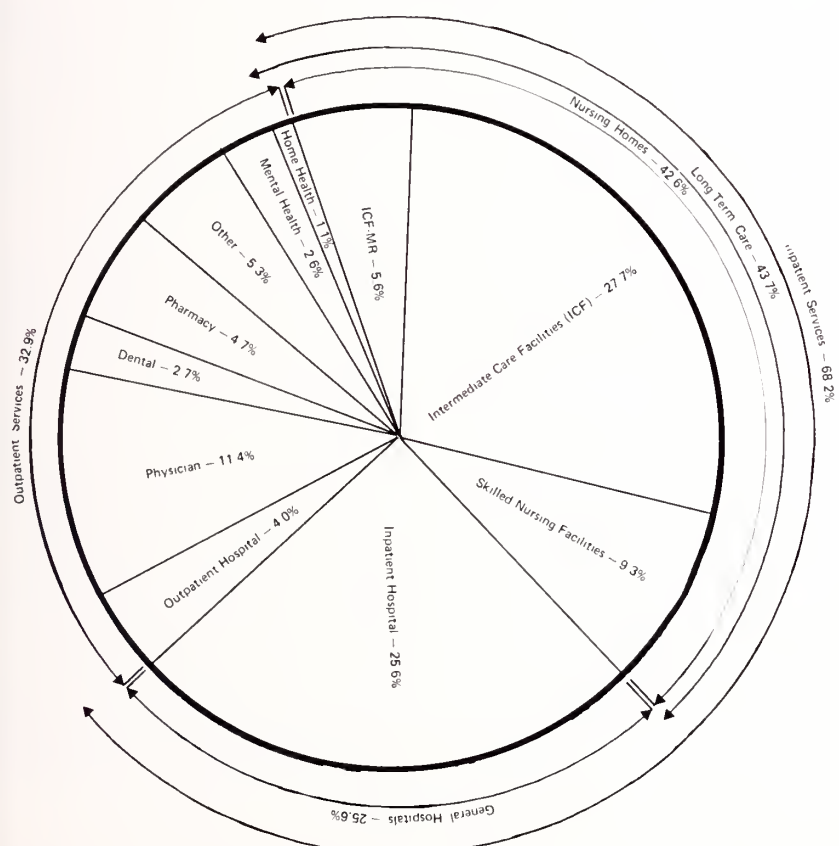
In any given month, about half of those eligible for Medicaid actually use medical services. However, over the course of a year, nearly 90% of eligible Kentuckians use their Medicaid cards on at least one occasion.

Except for a brief increase in the number of eligibles in the mid-1970's (under a now defunct program allowing unemployed fathers to qualify), the number of eligible persons has been remarkably stable. The current average monthly number of eligibles (320,000) is virtually identical to the number of eligibles seven years ago. However, the utilization rate has shown a steady upward climb in the past decade, rising from 43% in 1970 to nearly 49% this year.

As shown in Figure 4, the medically needy do not have a disproportionately high utilization rate in comparison with the categorically needy. About one-fifth of all Medicaid eligibles and users are medically needy. However, the average monthly medical costs are nearly three times higher for the medically needy than for other recipients, so they consequently account for 40% of all Medicaid expenditures.

Because of the high costs of institutional care, many recipients placed in a facility become classified as medically needy, thus accounting for a large portion of total Medicaid expenditures. In any month, almost one-fifth of medically needy persons are in institutions, compared to 3% of the categorically needy. The medically needy dominate the long-term care picture; they not only make up one-fourth of all Medicaid hospital patients, but also account for nearly three-quarters of all Medicaid hospital patients in SNFs and ICFs. Consequently, they generate about 70% of all long-term care expenditures and more than half of all institutional costs paid under Medicaid.

Fig. 3
DISTRIBUTION OF MEDICAID DOLLARS TO PROVIDERS



In terms of eligibility categories, the aged, disabled and families with dependent children each make up about one-third of overall expenditures, with blind persons accounting for the remaining 1%. However, as shown in Figure 5, there is considerable variation in the average monthly amount spent per eligible: the aged and disabled have average costs that are nearly double those of the blind and about four times greater than for individuals in families with dependent children. This is not surprising, as the aged and disabled together account for more than three-quarters of Medicaid institutional costs.

Utilization of Services

What exactly is bought with our Medicaid money? Figure 6 shows the top 10 hospital inpatient diagnoses, accounting for a quarter of all admissions and Medicaid hospital outlays.

Deliveries and pregnancy-related care account for about 12 percent of all inpatient hospital expenses, including both normal deliveries and those with complications. Approximately 10,000 babies are delivered to Medicaid mothers. Pregnancy-related expenses, including inpatient hospital, surgical and physician costs, amount to about 4% of the total Medicaid budget in any given year. The average total cost per pregnancy is about \$1,300.

Chronic diseases, like diabetes, ischemic heart disease, essential hypertension, malignant neoplasms and congestive heart failure, dominate the top 10 diagnoses. Together, these five diseases account for 10% of overall hospital expenditures. Figure 6 shows that drug charges are accountable for 6% of overall charges. For some procedures, like treatment of acute appendicitis, these charges are as much as 20% of the total bill.

Figure 7 details the 10 leading surgical procedures required by

Fig. 4 DISTRIBUTION OF MEDICAID DOLLARS TO RECIPIENTS		
	Categorically Needy	Medically Needy
<u>Percent Distribution of:</u>		
Eligibles	82%	18%
Utilizers	80%	20%
Medicaid Dollars	60%	40%
Institutional Outlays	48%	52%
<u>Average Monthly Amount Per Utilizer</u>	\$104	\$286

Medicaid patients. Many are obstetrical or gynecological treatments, such as cesarean sections, episiotomies, tubal ligations and hysterectomies. These 10 surgical procedures account for some 16% of overall hospital expenditures.

Nearly one-quarter of all Medicaid clients using both inpatient and outpatient physician services are diagnosed as having acute upper respiratory infections. Such infections by far account for the greatest proportion of **visits**, although prenatal care and deliveries both account for a larger proportion of Medicaid dollars spent. This is shown in Figure 8. Together the costs of the leading 10 physician diagnoses take one-fourth of all direct expenditures for physician care.

Figure 9 breaks down prescription drug use among the recipient categories. Disabled recipient categories. Disabled recipients account for the largest share of prescription expenses. Drugs for the average disabled recipient cost three times more than drugs for members of families with dependent children. More than one-third of total Medicaid drug costs for both the aged and disabled are spent on three drugs: diuretics, psychotropics and antiarthritics. Penicillin accounts for almost one-fifth of all drug expenditures for members of families with dependent children.

The Problems of Medicaid: A Provider's View

"Medicaid involves too much red tape."

Many physicians feel Medicaid billing and claims processing take an excessively long time and that it usually takes months to receive reimbursement for providing services for Medicaid clients.

It is true that it takes an average of 73 days from the date a service is performed to the date a check is sent to the doctor. Surprisingly, more than **two-thirds** of the delay occurs before a bill reaches Medicaid.

The Medicaid program does not receive the average physician's bill for a service until 50 days after the service is performed. Once the bill finally reaches Medicaid, claim processing takes 22.5 days, just over three weeks, before the check is mailed. In fact, federal regulations **require** Medicaid agencies to process at least 90% of "clean" claims (claims without errors) within 30 days of receipt. A recent sample of Kentucky Department for Human Resources claims revealed that only 7.5 percent of clean **and** unclean claims were held up longer than 30 days, so KMAP is well within the federal requirements.

Some doctors believe that KMAP returns too many claims to providers for trivial reasons. Only

Fig. 5
DISTRIBUTION OF MEDICAID DOLLARS
BY TYPE OF RECIPIENT

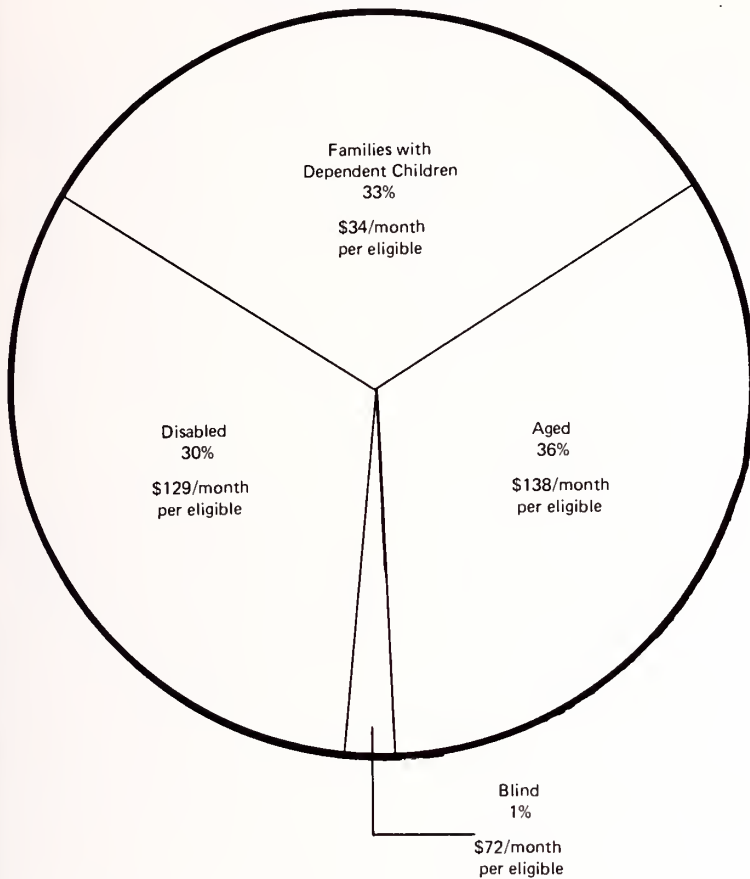


Fig. 6
TOP 10 HOSPITAL INPATIENT DIAGNOSES
BILLED UNDER MEDICAID

Diagnosis	Average Cost Per Stay	Average Drug Charge	Percent of Total Admissions	Hospital Cost
1. Normal Delivery	\$ 608	\$ 38	12.4%	9.3%
2. Diabetes	\$1037	\$106	2.7%	3.4%
3. Pneumonia, unspecified	\$1074	\$131	2.0%	2.6%
4. Chronic ischemic heart disease	\$1009	\$ 97	1.7%	2.0%
5. Other diseases of lung	\$1092	\$135	1.4%	1.9%
6. Delivery with unspecified complications	\$1286	\$148	1.0%	1.6%
7. Essential benign hypertension	\$ 930	\$ 83	1.3%	1.5%
8. Urinary tract infection	\$ 844	\$101	1.3%	1.3%
9. Multiple malignant neoplasm	\$1287	\$180	0.8%	1.3%
10. Congestive heart failure	\$1124	\$120	0.9%	1.2%
ALL DIAGNOSES*	\$ 826	\$ 50	100%	100%

*Includes those not in top 10 diagnoses.

about 7.5% of all physicians claims submitted must be returned for additional information. Federal regulations require that operative reports accompany surgical claims before the physician can be reimbursed. Similarly, sterilization consent forms must be submitted with claims for tubal ligations. In about 40% of cases where claims are returned to providers, necessary documentation of this kind is missing. More than 10% of returned claims are missing the physician's signature or license number and a slightly smaller proportion of claims lack the address of the facility where a service was performed.

Of course, some doctors feel Medicaid forms are too burdensome and complex to fill out properly. This criticism is difficult to fathom.

The current Medicaid form requires only 13 separate items of information, the bare minimum necessary to process the claim. Compare this to the American Medical Association claim form, which is approved by the AMA, used by Kentucky Blue Cross/Blue Shield, and is being considered by the federal government as a mandatory replacement for the current Medicaid form. This AMA preferred form requires 46 separate items of information, including several duplicative items that will not change from visit to visit (patient's birthdate and sex, provider's telephone number, social security number and employer identification numbers). Since the 13 items on the current Medicaid form are included in the 46-item form, it is difficult to see how the Medicaid form could possibly be more complex or time consuming than filling out a form that requires nearly four times as many pieces of information.

It is true that the procedure codes used in Medicaid are different than those used by Blue Cross/Blue Shield, yet the Medicaid codes are

identical to Medicare codes. It seems that Medicaid has become an unwitting scapegoat due to "conventional wisdom" among doctors that is simply unfounded in fact.

"Medicaid pays too little."

National studies show that average Medicaid reimbursement for physician services is 75% to 80% of amounts reimbursed for equivalent services by Medicare and Blue Shield.

In Kentucky, this generally is not true. According to a recent comparison of physician fees for a representative mix of common procedures, Medicaid reimbursements were virtually **equal** to Medicare reimbursement levels.¹

The study did not include a comparison of Medicaid-allowable fees with those of Blue Cross/Blue Shield, but it is known that on a national level Medicare fees are only slightly below the Blue Shield rates. For example, the best Blue Shield fee for a routine follow-up office visit is only 5% higher than the Medicare fee.² The fees under Medicare, Blue Shield and, in Kentucky, Medicaid, average 75% to 80% of usual and customary physician charges. Clearly, physicians might prefer to be paid 100% of their usual charges, but in Kentucky a physician, on the average, is only slightly worse off financially by treating a Medicaid patient than he is by treating a Blue Shield patient.

It should be noted that Kentucky is not allowed to pay more than current fees for outpatient services. Federal regulations do not permit paying a physician more than Medicare-allowable fees.

In the past the KMAP was far less generous in its payments to physicians. In 1961, for example, KMAP paid only \$2 for all types of office visits, which is equivalent to \$6.50 in current dollars. But last year, the average KMAP payment per physician outpatient procedure was \$12.21, an 85% increase in the

Fig. 7
TOP 10 SURGICAL PROCEDURES
BILLED UNDER MEDICAID

Procedure	Average Cost Stay	Average Drug Charge	Percent of Surgical Admissions	Hospital Cost
1. Blood Transfusion	\$1959	\$221	4.9%	3.8%
2. Cesarean Section	\$1385	\$146	3.9%	2.1%
3. Episiotomy	\$ 647	\$ 39	7.8%	2.0%
4. Exploratory Laparotomy or Coliotomy	\$2049	\$321	2.2%	1.7%
5. Cholecystectomy	\$1437	\$210	2.9%	1.7%
6. Tubal Ligation	\$ 593	\$ 44	4.8%	2.2%
7. Abdominal or Complete Total Hysterectomy	\$1413	\$190	1.9%	1.0%
8. Appendectomy	\$ 852	\$138	2.6%	0.9%
9. Cystoscopy and Urethroscopy	\$ 973	\$ 93	2.2%	0.8%
10. Circumcision	\$ 613	\$ 19	3.1%	0.7%

real reimbursement level for physician services. In the past eight years, the average payment per both inpatient and outpatient physician procedures rose by 141%, from \$7.71 to \$18.64. In that same period, the physician fee component of the consumer price index rose only 107%. In real terms, KMAP physician payments are nearly 20% higher than they would be if they had only been permitted to increase at the same rate that physician fees were increasing nationally.

The physician participation rate in Medicaid

In recent years, Kentucky has made a concerted effort to maintain a high rate of physician participation. For example, average fees have been allowed to grow considerably more rapidly than national fee trends. As shown in Figure 10, physician participation is increasing both in absolute and relative terms. Last year, nearly one-third more physicians billed the Medicaid program than had done so just five years earlier. The proportion of physicians participating statewide has steadily climbed at a rate of one percentage point annually, increasing to nearly 70% in the same period.

The participation rate in different areas of the state is encouraging. In fiscal year 1980, there were 27 counties—nearly one-fourth of all counties—in which 100% of all licensed physicians were participating. Forty percent of all counties had at least an 80% rate of physician participation. Only seven counties (6%) had a participation rate below 50%. Even in those counties, low physician participation is not necessarily a problem; what matters is the number of eligibles per participating physician.

As shown in Figure 11, Campbell, Hardin and Jefferson counties have low average participation rates, but the number of eligibles per participating physicians is not substantially different from the statewide average. In Allen and Gallatin counties, even if the participation rate rose to the 68% statewide average, there would still be an excessively large Medicaid population relative to the number of available physicians.

In Figure 12, the supply of participating physicians generally matches the distribution of eligibles quite well. Statewide, there is an average of 102 eligibles per physician and most area development districts are reasonably close to that

Fig. 8
TOP 10 PHYSICIAN SERVICES DIAGNOSES
BILLED UNDER MEDICAID

Diagnosis	Average Cost Per Diagnosis for Each Recipient	Percent of Physician Utilizers	Physician Expenditures
1. Prenatal Care Normal Pregnancy	\$ 62	5.6%	3.5%
2. Delivery, Normal	\$134	2.5%	3.3%
3. Acute Upper Respiratory Infections	\$ 14	23.0%	3.2%
4. Anesthesia	\$ 79	3.7%	2.9%
5. Bronchitis, Unqualified	\$ 20	12.2%	2.4%
6. Otitis Media, Unspecified	\$ 24	10.0%	2.3%
7. Radiological Examination	\$ 29	7.8%	2.2%
8. Diabetes Mellitus	\$ 55	3.0%	1.6%
9. Delivery, Single Born—Other	\$ 44	3.4%	1.5%
10. Essential Benign Hypertension	\$ 30	4.5%	1.3%

average. There are several areas, notably Cumberland Valley and Kentucky River, where the number of eligibles per physician is more than double the statewide average. This is one reason that the development of primary care centers has been stressed in these areas.

These data suggest that Kentucky has come a long way toward equal access to physician care for all Medicaid recipients. It also appears that whatever the problems may be in Medicaid, nearly seven of 10 physi-

cians in Kentucky find that the advantages of participation outweigh the disadvantages.

The Problems of Medicaid: A Taxpayer's View

The explosion in Medicaid costs

From a taxpayer's perspective, Medicaid costs are soaring out of control. In the past five years alone, expenditures have ballooned by more than 18% annually. The past decade has seen a six-fold increase

in non-administrative benefit expenditures for Medicaid, as shown in Figure 13.

Nearly two-thirds of that growth was beyond state control. Of the \$302 million spent on Medicaid this past year, more than \$150 million can be attributed to the rise in medical prices nationally, not just in Kentucky. About 5% of overall cost growth in the past decade is due to an increase in the number of Medicaid users. Fortunately, the monthly utilization rate appears to have stabilized in the past years at slightly less than 50% of eligibles.

Finally, new or expanded services have accounted for nearly one-third of total cost growth. Last year, we spent \$110 million on services which were not even offered to Medicaid recipients 10 years ago. The bulk of this amount, \$100 million, was for basic intermediate care and intermediate care for the mentally retarded.

At current growth rates, Medicaid is likely to exceed its budget this year by \$40 million and by \$50 million next year. Five years from now, projected expenditures could exceed budgeted revenues by \$200 million, unless we sharply contain

Fig. 9
DRUG UTILIZATION AMONG
MEDICAID RECIPIENTS

					FAMILIES WITH DEPENDENT CHILDREN
			AGED	DISABLED	
1. Average Monthly Percent Utilization			67.5%	65.0%	40.9%
2. Average Cost per Utilizing Recipient			\$109	\$146	\$47
3. Average Number of Prescriptions per Utilizing Recipient			26	31	12
4. Top Five Drugs Used					
Drug Class	Percent of Total Drug Costs for Aged	Drug Class	Percent Total Drug Costs for Disabled	Drug Class	Percent of Total Drug Costs for Dependent Children
1. Diuretics	12.9%	1. Psychotropics	20.1%	1. Penicillins	17.1%
2. Psychotropics	12.9%	2. Diuretics	7.4%	2. Miscellaneous Agents	13.7%
3. Antiarthritics	10.6%	3. Antiarthritics	7.3%	3. Erythramycin	10.1%
4. Cardiac Preparations	6.9%	4. Analgesics	7.2%	4. Contraceptive Agents	7.0%
5. Gastroenterics	4.9%	5. Miscellaneous Agents	4.4%	5. Analgesics	6.9%
5. Total Drug Cost (millions)			\$4.3	\$4.8	\$4.2

costs or the state decides to increase the fraction of state resources devoted to Medicaid clients by about 40%. In the worst case, Kentucky would be \$130 million in the hole in just two years and **\$650 million** in five years. In other words, the deficit in fiscal year 1985 could be twice the size of the entire Medicaid program last year.

Factors behind high medical costs

There are five features in the Medical system at the root of our cost containment problem:

- A reimbursement structure that rewards providers in direct proportion to the quantity, however justified, and costs, however reasonable, of services provided.

- A benefit structure and reimbursement system that contains a strong bias toward institutionalization both in acute care and long term care for Medicaid clients.

- Total freedom of choice for recipients, giving them no incentive to select equally appropriate but less costly forms of service delivery.

- Totally free care for recipients, giving them no incentive to be prudent or cost conscious in their consumption of medical services.

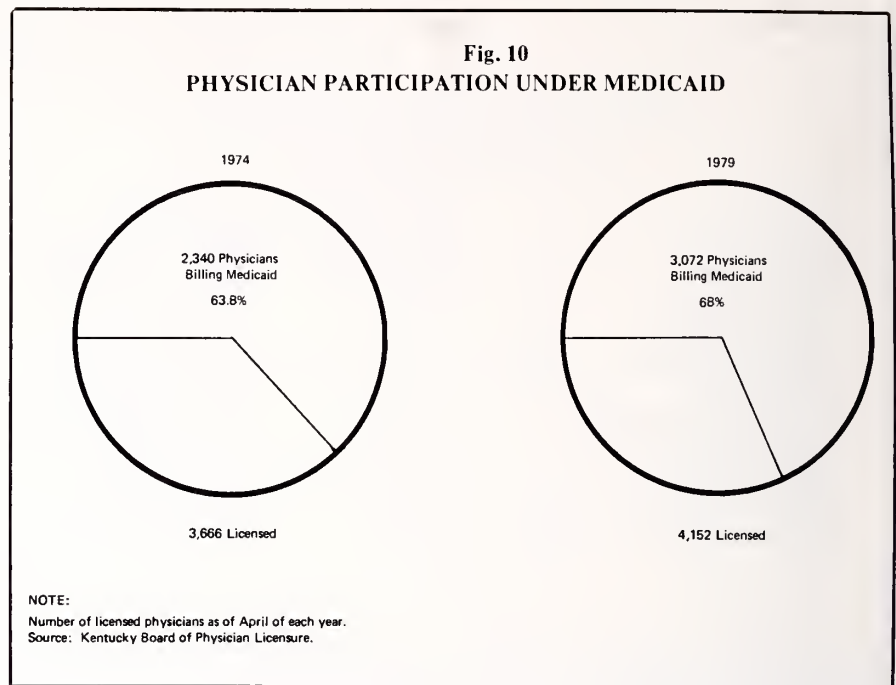
- Few market or regulatory constraints on costs or utilization, so there is little incentive for providers or recipients to be cost conscious in making decisions about medical care.

There are four major problems stemming from these features of the Medicaid system:

- Excess care.
- Inappropriate care.
- Inefficient care.
- Fragmented delivery.

Mitigation or elimination of these problems is the only avenue for achieving any significant cost savings in the Medicaid program.

Excess care represents somewhere between 5% and 25% of all medical expenditures. As long as care is free, recipients can be



expected to use more services than are medically necessary. Some are represented by the 55,000 Medicaid patients visiting physicians for "acute upper respiratory infections."

Providers are not blameless either, for as long as medical tests and procedures are cost free to them, they will be prone to practice "risk-free" medicine. That is, in order to insure that our imperfect medical tests have found everyone who truly has a certain disease, we end up testing, observing or treating a large number of people who are **not** genuinely in need of medical care, but who **appear** to be ill due to false positives on medical tests or ambiguous symptoms.

Inappropriate care abounds in our current system. This is represented by the 30% of nursing home clients who **could** be cared for at home if community-based health and social services were available. Only 20% to 35% of all Medicaid emergency room visits involve genuine emergencies. This occurs because we have created a system in which people do not personally incur the costs of their inappropri-

ate behavior. At least \$5 million could be saved annually if we eliminated medically inappropriate care.

Inefficient care results when providers are guaranteed reimbursement for their costs, regardless of how competitive they are with similar providers. For example, a hospital with an occupancy rate of 40% will have a *per diem* cost that is roughly 50% more than if it maintained an 80% rate. Thus, Medicaid could pay 50% more for identical care. There is absolutely no incentive under the current system for the hospital to operate at 80% occupancy rate rather than 40%. It is no surprise that nearly 10% of Kentucky hospitals have occupancy rates below 50%. In a competitive system, it is likely that such facilities would be forced to improve their efficiency or shut down altogether. Kentucky could save several million dollars a year if measures were adopted to discourage inefficient care.

Finally, **fragmented delivery** can lead to unnecessary and wasteful testing, unnecessary emergency room use, and insufficient attention paid to preventive care or health

Fig. 11

County	Total Number of Physicians*	Physician Participation Rate	Medicaid Eligibles per Participating Physician*	Eligibles per Physician if Participation Rate Equalled Statewide Average (68.1%)
Allen	6	16.7%	1,130	282
Campbell	96	47.9%	121	85
Christian	78	38.5%	224	127
Gallatin	1	0%	—	377
Hardin	76	48.7%	101	50
Jefferson	1,760	49.9%	67	49
STATE TOTAL		68.1%		102

Includes licensed physicians and physicians without licensure numbers who billed KMAP in FY 80.

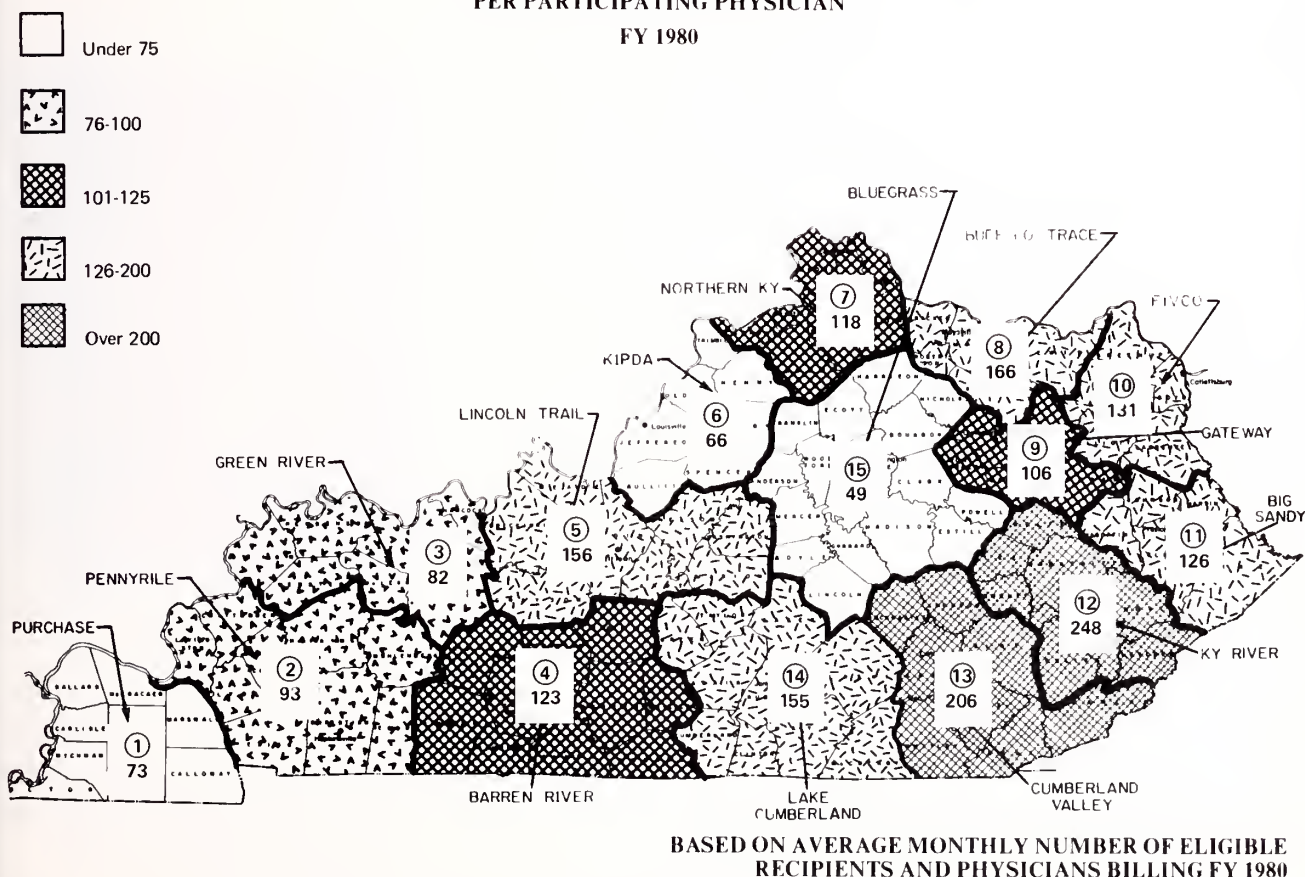
Excludes out-of-state physicians who bill in that county.

promotion. Many of the problems cited here could be significantly curtailed if each Medicaid client had a single appropriately motivated primary care provider to coordinate service delivery. For example, Medicaid patients placed on lock-in (where only a single physician is allowed to provide or approve all care) show a 25% reduction in *per capita* medical expenditures during the lock-in period.

Conclusions

Medicaid has grown enormously in the past decade, both in the size of eligible population and the scope of covered services. Medicaid still does not cover everyone in financial need of medical care, but most Kentuckians in serious need are covered. Moreover, those who are

Fig. 12
NUMBER OF ELIGIBLE RECIPIENTS
PER PARTICIPATING PHYSICIAN
FY 1980



covered now have a comprehensive package of physical and mental health services at their disposal.

Currently, more than 70% of Medicaid dollars are spent for institutional care and more than 40% go to long term care. Direct and indirect payments to physicians account for nearly one of every seven dollars spent in Medicaid. The medically needy account for about 40% of all dollars spent, largely because they account for the bulk (75%) of long term care patients in the state.

There are problems with Medicaid, but the complaints voiced by many providers turn out to be largely exaggerated. It **does** take a rather long time, on the average, for physicians to receive payment for Medicaid services, but two-thirds of the delay stems from physicians' billing practices. Medicaid

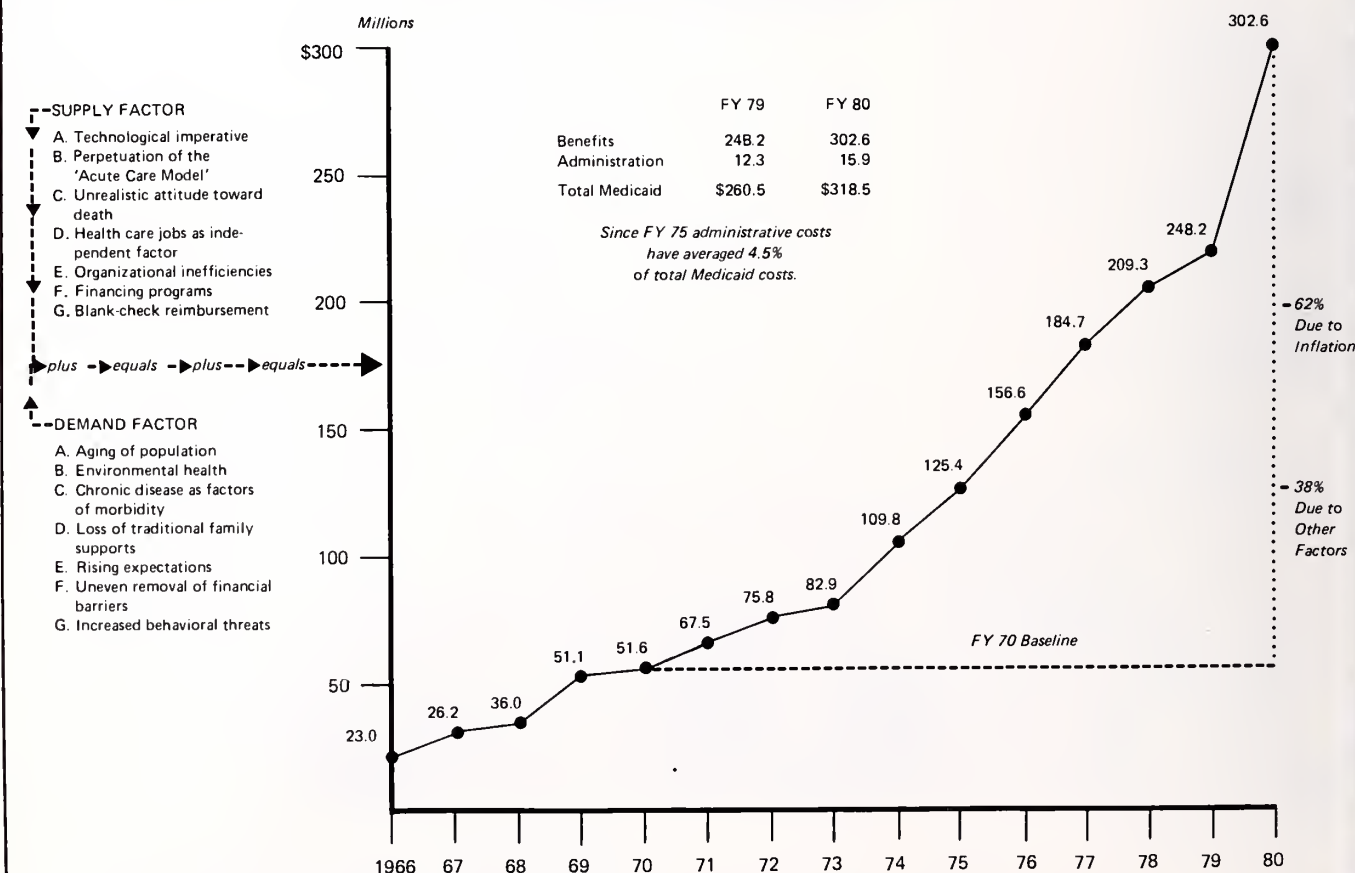
processes the average claim in just three weeks and more than 90% are processed within one month. In addition, based on claims processing errors, KMAP has extremely good record compared to other states. It is hard to square this fact with the lurid caricature some physicians paint of the Kentucky Medicaid program as a bloated, sluggish and inefficient bureaucracy. Although conventional wisdom holds that Medicaid fees are too low, the allowable payments for physicians services in Kentucky are about the same as for Medicare and only slightly below those of Blue Shield. Kentucky pays physicians as much as can be legally be paid under federal regulations. The fact that the real average payment per physician service has outstripped inflation by about 40% over the past eight years

attests to our willingness to pay a fair fee for provider services.

The **real** problems of Medicaid parallel the problems of medical care in general. Both in Kentucky and elsewhere in the nation, we have created a system in which market forces that might contain costs have been shattered. By breaking these market links, we now have a system which rewards the provision of the costliest kinds of care. Neither providers or recipients are accountable for the health costs they generate because someone else pays the bill. Not surprisingly, this leads to excess or inappropriate care, inefficiency and fragmented delivery. It also has resulted in uncontrollable Medicaid costs.

In the next two years alone, Medicaid could run a cumulative deficit

Fig. 13
GROWTH OF MEDICAID BENEFIT EXPENDITURES



of \$80 million if we fail to take action. The dilemma of Medicaid cost containment is a problem that will require our best efforts to find creative solutions. It also will require the cooperative efforts of KMAP and providers. It is an immense and difficult task, but one in which Kentucky literally cannot afford to fail.

References 1. IL Burney, GJ Schieber, MD Blaxall, and JR Gabel: "Geographic Variation in Physicians' Fee: Paying the Physician Under Medicare and Medicaid" *JAMA*, 240 (September 22, 1978). 2. IL Burney, GJ Schieber, MO Blaxall, and J Gabel, "Medicare and Medicaid Physician Payment Incentives" *Health Care Financing Review* (Summer, 1979), p. 66.

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William G. Kenton, J.D., Speaker of the Kentucky House of Representatives, will speak on professions' and associations' roles and responsibilities in lobbying, with an emphasis on proper methods of persuasion to influence legislation. Speaker Kenton will give an overview of the 1982 General Assembly and changes expected as a result of recent amendments to the Constitution changing dates and terms of Senators and Representatives. Kenton has been a leader in reorganizing the General Assembly and creating a more businesslike atmosphere within the legislative process.

Medicaid in Kentucky, The Financial Picture as of January 1981

The Kentucky Medical Assistance Program (Medicaid) is an extremely complex program, which has now become an extremely expensive program as well. The purpose of this paper is to present a few of the facts—a selection of the tables and charts from the 1979 and 1980 annual reports—to show where the money goes, what it buys, and where the physicians fit into the picture. We have shown a few trends, and drawn a few conclusions, but we are leaving to you the challenges of further interpretation.

The data used to describe the Medicaid program are derived from the billing forms submitted for payment. Clearly major financial trends can be identified and inferences can be made about the total program and the impact of the care provided.

Medicaid was designed originally as an entitlement program in which all bills submitted for eligible persons must be paid (at least on a percentage of charge basis) for unlimited numbers of services within predefined categories of medical service. One result has been the explosive growth in the expense. (See Figure 1) This very rapid growth in expenditure has occurred despite the fact that the number of individuals eligible for Medicaid has been relatively constant for several years. (See Figure 2)

Physician Services

Table 1 shows the 50 most frequently submitted bills for physician services in Fiscal Year 1979.

Table 2 shows the changes in numbers and amounts paid for physician services from 1972 to 1980. In this latter table it can be seen that the amount paid to physicians jumped from \$8.6 million in 1972 to \$30.2 million in 1980 which is more than a threefold increase. The most dramatic share of this increase went from \$1.9 million in 1972 to \$13.8 million in 1980, a more than sevenfold increase. This inpatient physician cost has actually doubled in three years. The balance of payments for inpatient versus outpatient services is clearly shifting in favor of inpatient procedures, which constituted only 21.9% of all physician payments in 1972, but rose to 45.7% in 1980.

The figures for hospital changes can be seen in Table 3. The cost for inpatient hospitalization rose from \$19.2 million in 1972 to \$68.7 million in 1980, more than tripling in 8 years. In Table 4 the 50 most frequently billed reasons for inpatient hospital services are given; and in Table 5 the 50 most frequently billed surgical (or surgery related) services are listed. In Table 5 the costs cited denote the total hospitalization costs, and not the costs of the procedure alone (i.e., #2-Blood Transfusions—cost per stay of \$1,958.82 indicates that the average cost of all hospitalizations which include transfusions is \$1,958.82, and not that an average transfusion costs that much).

Table 6 shows the kinds of drugs supplied, and their costs, by category of recipient for 1979. Of the total of \$13.5 million, over 10% is

for psychotropics, and almost 8% for diuretics. Over half of the cost of the drug program is the prescription fee charged by the retail pharmacist at the point of purchase (\$2.35 per prescription) compared to the total coverage drug cost of \$4.39.

Table 7 shows the payments made in the Home Health program in 1979. Visits made by registered nurses are over a third of all services reimbursed, 35.1%, and LPN's add an additional 10.6%. The average service cost was \$23.29.

Table 8 shows the changes in Home Health costs since 1972. The total number of services rose from 58,858 in 1972 to 130,132 in 1980 and the average unit cost rose from \$8.12 to \$25.87.

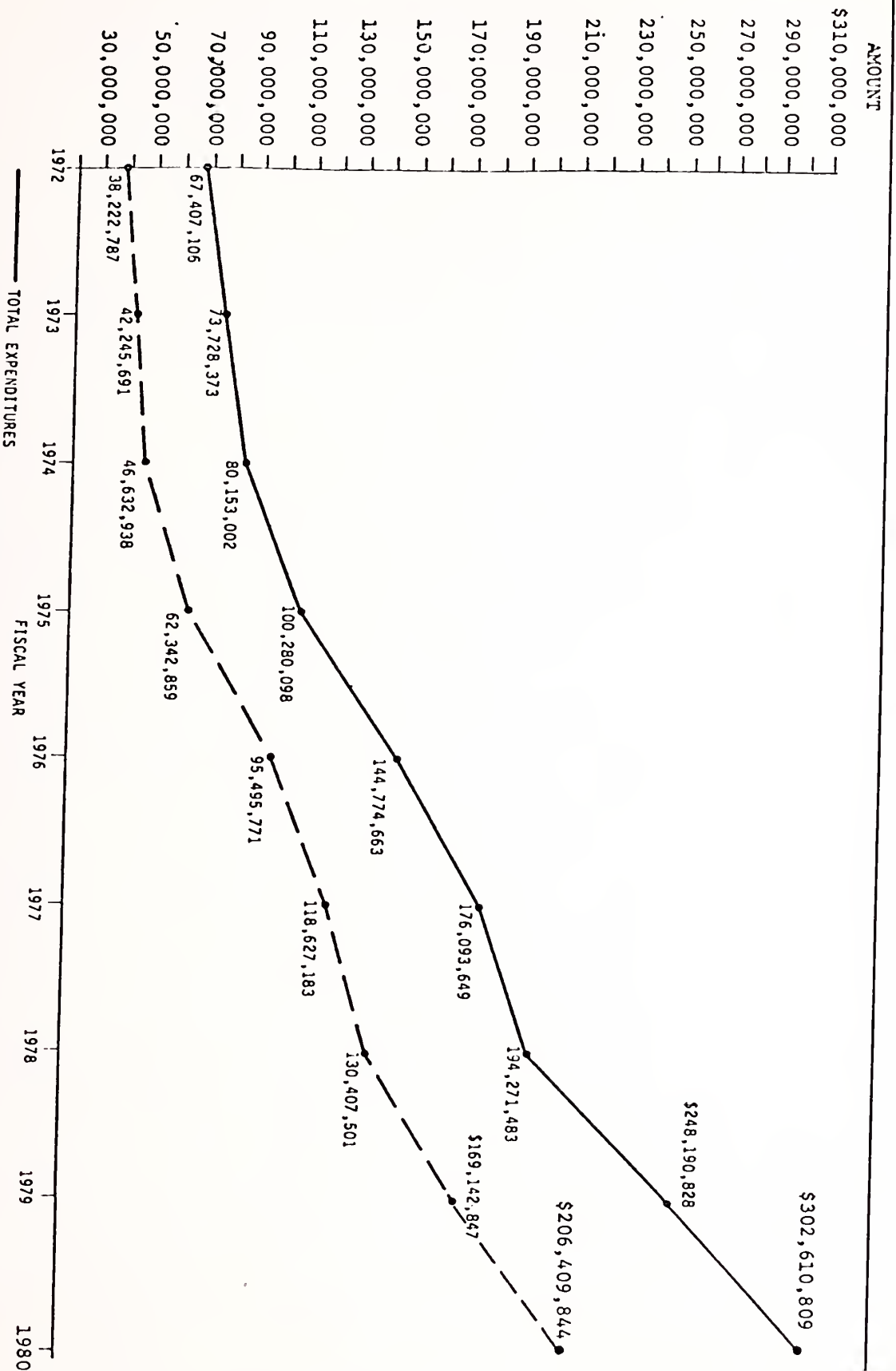
The financial ramifications of Skilled Nursing Home services from 1972 through 1979 are given in Table 9. Although the number of recipients rose only 20%, the total cost of Skilled Nursing Home services rose almost 70%.

Of even greater significance are the financial ramifications of Intermediate Care Nursing Home services. Expenditures for this level of care have grown 25 times since 1973—from \$3.1 million in 1973 to \$83.2 million in 1980.

Comments

Physicians as a group have received a substantial increase in total dollars from the Medicaid Program since 1972 (almost a threefold increase). Despite these increases the physician portion of the total Medicaid bill has stayed at about

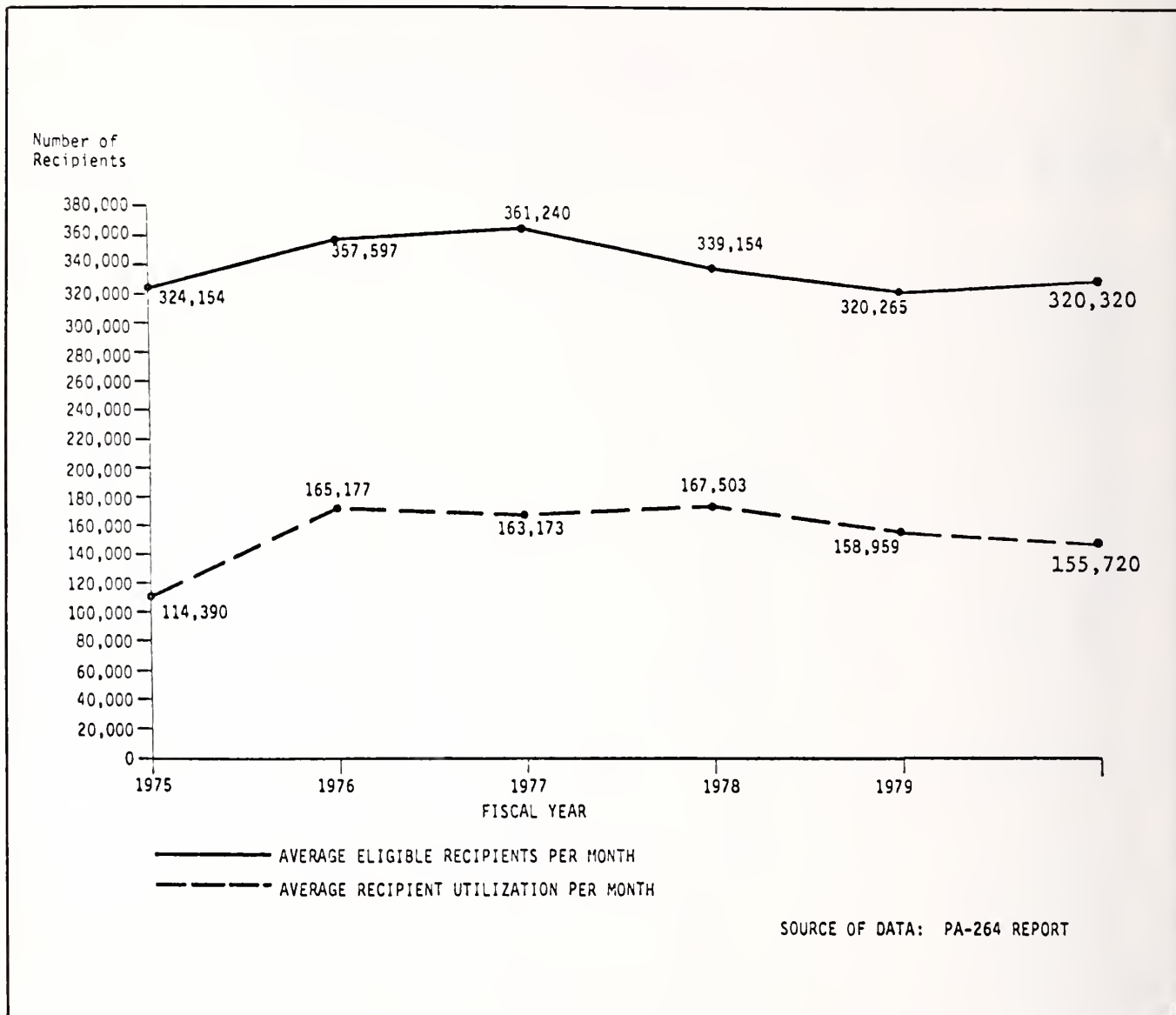
FIGURE 1
Total Program Expenditures and Inpatient Service Costs for Fiscal Years 1972-1979



SOURCE OF DATA: SRS-2082 (1972-1976)
MEDICAID DAILY TRANSMITTAL LOGS (1977-1978)
PA-264 (1979)

FIGURE 2

Number of Eligible Recipients and Number Who Utilized Services for Fiscal Years 1975-1979



the same level—around 13% of all Medicaid payments.

Although physicians receive only 13% of the total Medicaid expenditure, physician decisions are the basis for almost all Medicaid costs. The physicians determine the kinds of services to be sought, when they are to be provided, and where they will ultimately be delivered.

Analysis of costs per diagnosis is difficult for two reasons: 1) Medicaid data for a single patient is currently linked for multiple visits only

within a fiscal year, and 2) many patients pass in and out of eligible status within the fiscal year. However, given these constraints on the data, the increase in the average payment received by a physician for any given diagnosis has exceeded the inflation rate for the last several years.

Rates of surgery for many elective procedures have jumped dramatically in the last five years. Why should this be?

Many analyses should be done on

the trends mirrored in Medicaid billing data. We will be reporting on these trends more frequently in the future. Beneath these analyses is a very difficult question that has not been answered to date: should there be a planned distribution of resources in the Medicaid program, or should the program remain purely as a payment reaction to the demands of the marketplace?

TABLE 1
The 50 Physician Service Categories Most Frequently Billed
in Fiscal Year 1979

Diagnosis	No. Of Undup. Recip.	No. Adm. To Hosp.	Avg. Cost Per Billing Per Undup. Recip.	Number Of Bills	Estimated Total Cost	% OF Total Undup. Recip.
1. Acute Upper Respiratory Infection	55,537	639	\$13.95	106,051	\$774,741	23.0%
2. Bronchitis, Unqualified	29,555	1,309	19.65	59,142	580,756	12.2
3. Otitis Media, Unspecified	24,054	1,000	23.57	47,393	566,953	10.0
4. Acute Pharyngitis	20,164	264	14.45	30,807	291,370	8.4
5. Radiological Examination	18,835	7,988	28.57	44,583	538,116	7.8
6. Acute Tonsillitis	16,720	856	19.16	27,197	320,355	6.9
7. Skin Disorder, Unspecified	14,785	205	22.06	37,498	326,157	6.1
8. Prenatal Care, Normal Preg.	13,603	1,049	62.39	92,762	848,691	5.6
9. Gastroenteritis and Colitis	13,213	1,794	20.96	23,857	276,944	5.5
10. Urinary Tract Infection NEC	13,132	1,029	21.77	33,798	285,884	5.4
11. General Medical Examination	13,028	179	17.39	22,065	226,557	5.4
12. Well Baby and Child Care	10,984	91	19.26	22,506	211,552	4.6
13. Essential Benign Hypertension	10,957	1,190	29.94	32,767	328,053	4.5
14. Anxiety Neurosis	9,797	732	20.49	20,972	200,741	4.1
15. Anemia, Unspecified	9,075	586	17.35	20,563	157,451	3.8
16. Anesthesia	8,931	8,192	79.30	10,408	708,228	3.7
17. Acute Nasopharyngitis	8,724	24	13.25	12,996	115,593	3.6
18. Abdominal Pain	8,673	1,234	26.39	17,245	228,880	3.6
19. Cystitis	8,335	335	17.95	20,344	149,613	3.5
20. Vaginitis and Vulvitis	8,277	145	16.86	14,675	139,550	3.4
21. Delivery, Single Born—Other	8,108	7,986	44.50	10,783	360,806	3.4
22. Acute Bronchitis and Bronchiolitis	7,986	1,049	22.14	16,742	176,810	3.3
23. Gastritis and Duodenitis	7,761	812	19.84	14,542	153,978	3.2
24. Other Surgical Aftercare	7,564	662	22.79	13,669	172,384	3.1
25. Pneumonia, Unspecified	7,282	2,372	42.20	24,536	307,300	3.0
26. Obesity NOS, of Origin other than Endocrine	7,158	523	25.03	18,318	179,165	3.0
27. Diabetes Mellitus, without Acidosis or Coma	7,138	1,471	55.39	43,678	395,374	3.0
28. Arthritis, Unspecified	6,834	290	21.13	17,102	144,402	2.8
29. Influenza, Unqualified	6,819	179	13.39	10,548	91,306	2.8
30. Sinusitis, Chronic	6,409	120	15.34	9,926	98,314	2.7
31. Headache	6,240	263	19.68	11,158	122,803	2.6
32. Delivery, Normal	6,071	5,999	133.95	6,547	813,210	2.5
33. Viral Infection, Unspecified	5,552	304	16.15	8,332	89,665	2.3
34. Asthma	5,529	825	14.92	18,398	82,493	2.3
35. Streptococcal Sore Throat	4,939	105	13.62	7,690	67,269	2.1
36. Pain in Chest	4,856	537	26.98	9,968	131,015	2.0
37. Conjunctivitis and Ophthalmia	4,636	63	14.55	6,028	67,454	1.9
38. Chronic Ischemic Heart Disease w/o Hypertensive Disease	4,534	1,181	52.94	14,818	240,030	1.9
39. Depressive Neurosis	4,446	885	50.39	14,806	224,034	1.8
40. Diarrhea	4,055	323	16.21	6,363	65,732	1.7
41. Other Disease of the Lung	3,882	1,194	54.06	15,389	209,861	1.6
42. Impetigo	3,735	32	13.96	5,053	52,141	1.6
43. Nausea and Vomiting	3,732	465	16.87	5,760	62,959	1.6
44. Respiratory Disease, Other	3,651	168	17.72	6,373	64,696	1.5
45. Convulsions	3,643	993	27.26	11,808	99,308	1.5
46. Rash	3,355	48	12.92	4,405	43,347	1.4
47. Hay Fever	3,352	16	29.84	10,217	100,024	1.4
48. Pelvic Inflammatory Disease	3,133	449	30.03	6,992	94,084	1.3
49. Scabies	3,108	25	13.16	3,933	40,901	1.3
50. Postpartum Observation	2,968	52	16.17	4,390	47,993	1.2

TABLE 2
Changes in Billings For Physician Services 1972-1980

FISCAL YEAR	Total Undupl. Recipients	Changes From Previous Year		Cumulative Percent Change	Total Amt. Paid	Changes From Previous Year		Cumulative Percent Change	Amount Paid For Outpatient	Changes From Previous Year		Cumulative Percent Change
		Recip	Percent			Amount	Percent			Amount	Percent	
1972	189,141	—	—	—	\$ 8,634,504	—	—	—	\$ 6,741,500	—	—	—
1973	196,495	+ 7,354	+ 3.9%	+ 3.9%	9,602,948	+\$ 968,444	+11.2%	+ 11.2%	7,542,026	+\$ 800,626	+11.9%	+ 11.9%
1974	N/A	N/A	N/A	N/A	10,263,636	660,688	+ 6.9	+ 18.9	8,190,491	+ 648,465	+ 8.6	+ 21.5
1975	209,312	+12,817	+ 6.5	+10.6	10,598,308	+ 334,672	+ 3.3	+ 22.7	8,675,279	+ 484,788	+ 5.9	+ 28.7
1976	246,075	+36,763	+17.6	+30.1	13,837,108	+3,238,800	+30.6	+ 60.3	10,754,881	+ 2,079,602	+24.0	+ 59.5
1977	258,805	+12,730	+ 5.2	+36.8	19,955,337	+6,118,229	+44.2	+131.1	13,151,883	+ 2,397,002	+22.3	+ 95.0
1978	300,641	+41,836	+16.2	+59.0	25,916,361	+5,961,024	+29.9	+200.1	15,692,548	+ 2,540,665	+19.3	+132.8
1979	241,492	-59,149	-19.7	+27.7	24,518,672	-1,327,689	- 5.1	+184.0	14,448,272	- 1,244,276	- 7.9	+114.3
1980	232,888	- 8,604	- 3.6	+23.1	30,168,301	+5,649,629	+23.0	+299.4	16,417,949	+ 1,969,677	+13.6	+143.5

FISCAL YEAR	Amount Paid For Inpatient	Changes From Previous Year		Cumulative Percent Change	Average Payment Per Procedure	Changes From Previous Year		Cumulative Percent Change	Avg Pd Per Out-patient Procedure	Changes From Previous Year		Cumulative Percent Change
		Amount	Percent			Amount	Percent			Amount	Percent	
1972	\$ 1,893,004	—	—	—	\$ 7.71	—	—	—	\$ 6.32	—	—	—
1973	2,060,922	+\$ 167,918	+ 8.9%	+ 8.9%	8.14	+\$0.43	+ 5.6%	+ 5.6%	6.73	+\$0.41	+ 6.5%	+ 6.5%
1974	2,073,145	+ 12,223	+ 0.6	+ 9.5	8.25	+ 0.11	+ 1.4	+ 7.0	6.91	+ 0.18	+ 2.7	+ 9.3
1975	1,923,029	- 150,116	- 7.2	+ 1.6	8.28	+ 0.03	+ 0.4	+ 7.4	7.08	+ 0.17	+ 2.5	+12.0
1976	3,082,227	+1,159,198	+60.3	+ 62.8	8.17	- 0.11	- 1.3	+ 6.0	7.27	+ 0.19	+ 2.7	+15.0
1977	6,803,454	+3,721,227	+120.7	+259.4	10.59	+ 2.42	+29.6	+ 37.4	8.40	+ 1.13	+15.5	+32.9
1978	10,223,813	+3,420,359	+ 50.3	+440.1	12.98	+ 2.39	+22.6	+ 68.4	9.59	+ 1.19	+14.2	+51.7
1979	10,070,400	- 153,413	- 1.5	+442.0	14.02	+ 1.04	+ 8.0	+ 81.8	10.25	+ 0.66	+ 6.9	+62.2
1980	13,750,352	+3,679,952	+ 36.5	+626.4	16.83	+ 2.81	+20.0	+118.3	11.54	+ 1.29	+12.6	+82.6

FISCAL YEAR	Average Paid Per Inpatient Procedures	Changes For Previous Year		Cumulative@ Percent Change	Percent of Total Amount Paid	
		Amount	Percent		OP	IP
1972	\$34.96-	—	—	—	78.1%	21.9%
1973	34.67-	-\$0.29	- 0.8%	- 0.8%	78.5	21.5
1974	34.72-	+ 0.05	+ 0.1	- 0.7	79.8	20.2
1975	34.90-	+ 0.18	+ 0.5	- 0.2	81.9	18.1
1976	14.29-	-20.61	+59.1	—	77.7	22.3
1977	21.30-	+ 7.01	+49.1	+ 49.1	65.9	34.1
1978	28.83-	+ 7.53	+35.4	+101.7	60.6	39.4
1979	29.68-	+ 0.85	+ 2.9	+107.7	58.9	41.1
1980	37.11	+ 7.43	+25.0	+159.7	54.4	45.6

— Old payment system of flat fee per admission
 - New payment system allowing per day reimbursement
 @ Base Year 1972 for 1972-1976, Base Year 1976 for 1976-1980

TABLE 3

Hospital Inpatient Services—1972-1980

FISCAL YEAR	No. Of Admissions	Changes From Previous Year		Cumulative Percent Change	Total Amount Paid	Changes From Previous Year		Cumulative Percent Change	% Of Total Charges Paid	Avg Length Of Stay
		Amount	Percent			Amount	Percent			
1972	49,483	—	—	—	\$19,197,451	+\$1,208,627	—	—	87.9%	6.60
1973	54,495	+5,012	+10.1%	+10.1%	22,114,032	+ 2,916,581	+15.2%	+ 15.2%	85.1	6.63
1974	52,103	-2,393	- 4.4	+ 5.3	23,063,371	+ 949,339	+ 4.3	+ 20.1	85.4	6.70
1975	54,339	+2,236	+ 4.3	+ 9.8	27,952,474	+ 4,889,103	+21.2	+ 45.6	81.9	6.42
1976	63,972	+9,633	+17.7	+29.3	37,920,731	+ 9,968,257	+35.7	+ 97.5	84.9	6.41
1977	69,071	+5,099	+ 8.0	+39.6	45,319,406	+ 7,398,675	+19.5	+136.1	82.8	6.30
1978	66,595	-2,476	- 3.6	+34.6	48,219,011	+ 2,899,605	+ 6.4	+151.2	81.7	6.32
1979	69,823	+3,228	+ 4.9	+41.1	57,521,896	+ 9,302,885	+19.3	+199.1	81.5	6.20
1980	73,462	+3,639	+ 5.2	+48.5	68,706,998	+11,185,102	+19.4	+257.9	81.5	6.18

FISCAL YEAR	Avg Cost Per Day	Changes From Previous Year		Cumulative Percent Change	Number Of Un-duplicated Recips	Avg Cost Per Stay	Changes From Previous Year		Cumulative Percent Change	Total Days of Care	Number Of Surgeries	Changes From Previous Year		Cumulative Percent Change
		Amount	Percent				Amount	Percent				Surgeries	Percent	
1972	\$ 72.25	+\$ 9.83	—	—	38,292	\$387.96	+\$ 41.78	—	—	326,724	15,390	—	—	—
1973	73.64	+ 1.39	+ 1.9%	+ 1.9%	39,571	405.80	+ 17.84	+ 4.6%	+ 4.6%	361,343	16,889	+1,499	+ 9.7%	+ 9.7%
1974	78.88	+ 5.24	+ 7.1	+ 9.2	38,192	442.65	+ 36.85	+ 9.1	+ 14.1	349,028	17,897	+1,008	+ 6.0	+16.3
1975	93.49	+ 14.61	+18.5	+ 29.4	40,223	514.41	+ 71.76	+16.2	+ 32.6	348,595	17,427	- 470	- 2.6	+13.2
1976	90.99	- 2.50	- 2.7	+ 25.9	47,123	592.78	+ 78.37	+15.2	+ 52.8	416,760	21,251	+3,824	+21.9	+38.1
1977	103.40	+ 12.41	+13.6	+ 43.1	49,524	656.13	+ 63.35	+10.7	+ 69.1	438,180	22,489	+1,238	+ 5.8	+46.1
1978	134.17	+ 30.77	+29.8	+ 85.7	48,552	724.06	+ 67.93	+10.4	+ 86.6	420,949	21,560	- 929	- 4.1	+40.1
1979	158.39	+ 24.22	+18.1	+119.2	49,027	826.33	+ 102.27	+14.1	+113.6	431,330	22,604	+1,044	+ 4.8	+46.0
1980	181.38	+ 22.99	+14.5	+151.0	51,102	935.27	+ 108.94	+13.2	+141.1	453,681	24,309	+1,705	+ 7.5	+58.0

Hospital Outpatient Services—1972-1980

FISCAL YEAR	Total Amount Pd. (Includes Professional Component)	Changes From Previous Year		Cumulative Percent Change	Average Cost Per Procedure	Changes From Previous Year		Cumulative Percent Change
		Amount	Percent			Amount	Percent	
1972	\$ 2,012,714	—	—	—	\$ 8.75	—	—	—
1973	2,536,037	+\$ 523,322	+26.0%	+ 26.0%	9.25	+ 0.50	+ 5.7%	+ 5.7%
1974	2,963,250	+ 427,213	+16.9	+ 47.2	9.31	+ 0.06	+ 0.6	+ 6.4
1975	3,662,114	+ 698,864	+23.6	+ 81.9	10.60	+ 1.29	+13.9	+21.1
1976	5,506,185	+ 1,884,071	+50.4	+173.6	11.49	+ 0.89	+ 8.4	+31.3
1977	6,984,862	+ 1,478,677	+26.9	+247.0	12.64	+ 1.15	+10.0	+44.5
1978	7,585,882	+ 601,020	+ 8.6	+276.9	13.80	+ 1.16	+ 9.2	+57.7
1979	9,142,552	+ 1,556,670	+20.5	+354.2	15.47	+ 1.67	+12.1	+76.8
1980	11,143,034	+ 2,000,482	+21.9	+453.6	16.79	+ 1.32	+ 8.5	+91.9

NOTE: Does not include any Deductible or Coinsurance information for inpatient services for recipients age 65 or over. Hospital outpatient services are paid at full reasonable cost for all recipients.

TABLE 4
Reasons (Diagnoses) for Hospital Inpatient Services:
The 50 Most Frequently Billed

Diagnosis	Admis- sions	%of Total Adm.	Undup. Pa- tients	Fre- quency of Surgery	Avg. Length of Stay (Days)	Average Cost Per Stay	Total Cost	Avg. Drug Charge
1. Normal Delivery	8,757	12.4%	8,721	2,832	3.13	\$ 607.88	\$5,323,205	\$ 37.96
2. Diabetes without mention of acidosis or coma	1,872	2.7	1,218	291	8.41	1,037.45	1,942,106	106.35
3. Pneumonia, unspecified	1,391	2.0	1,315	123	7.86	1,074.40	1,494,490	131.40
4. Chronic ischemic heart disease without mention of hypertension	1,164	1.7	998	145	8.01	1,009.41	1,174,953	97.46
5. Gastroenteritis and Colitis	1,130	1.6	1,074	70	4.47	527.95	596,584	47.32
6. Sterilization	1,085	1.6	1,085	1,085	2.98	593.18	643,600	43.69
7. Other diseases of lung	997	1.4	812	109	8.16	1,091.63	1,088,355	135.25
8. False labor	962	1.4	834	22	1.45	164.09	157,855	9.51
9. Essential benign hypertension	933	1.3	832	158	7.08	930.20	867,877	83.23
10. Otitis media, unspecified	902	1.3	863	424	2.78	413.73	373,184	26.70
11. Urinary tract infection	901	1.3	848	183	7.26	843.99	760,435	100.97
12. Abdominal pain	887	1.3	856	189	4.84	618.40	548,521	66.76
13. Electrolyte disorders	876	1.3	823	37	5.88	662.79	580,604	75.93
14. Bronchitis, unqualified	799	1.1	750	27	5.11	629.00	502,571	67.88
15. Acute bronchitis and bronchiolitis	798	1.1	744	13	5.18	621.46	495,925	63.99
16. Asthma	785	1.1	613	28	5.08	693.58	544,460	96.81
17. Convulsions	776	1.1	675	54	5.75	793.18	615,508	50.96
18. Hypertrophy of tonsils and adenoids	740	1.1	734	703	1.99	352.46	260,820	22.98
19. Delivery with unspecified com- plications	694	1.0	694	689	6.29	1,286.10	892,553	148.32
20. Congestive heart failure	616	.9	527	72	9.19	1,123.73	692,218	119.77
21. Spontaneous abortion without sepsis or toxemia	614	.9	597	510	1.94	391.76	240,541	34.48
22. Multiple malignant neoplasm—site unspecified	565	.8	402	197	10.90	1,286.69	726,980	180.02
23. Depressive Neurosis	542	.8	497	18	6.89	748.18	405,514	37.48
24. Gastritis and duodenitis	520	.7	488	58	5.44	606.13	315,188	71.60
25. Acute upper respiratory infection	484	.7	476	23	4.70	533.12	258,030	38.06

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26. Other conditions of fetus or newborn	403	6%	398	41	6.32	547.37	220,590	16.98
27. Unspecified neurosis	388	.6	362	9	7.51	789.95	306,501	39.30
28. Angina pectoris without high blood pressure	361	.5	313	31	6.44	950.54	343,145	83.78
29. Nausea and vomiting	358	.5	350	33	5.41	625.64	223,979	76.73
30. Schizophrenia, unspecified	356	.5	298	17	11.06	979.20	348,595	46.78
31. Cholelithiasis with cholecystitis	350	.5	339	292	9.23	1,176.98	411,943	154.73
32. Other Complications of Pregnancy, Other	333	.5	317	42	2.84	376.44	125,355	34.44
33. Acute appendicitis without mention of peritonitis	330	.5	328	325	4.68	731.01	241,233	108.59
34. Pneumococcal pneumonia	329	.5	321	1	5.65	761.25	250,451	82.45
35. Pain in chest	320	.5	292	25	5.57	769.53	246,250	58.29
36. Pelvic inflammatory disease	319	.5	299	81	5.19	722.05	230,334	155.15
37. Bronchopneumonia, unspecified	315	.5	308	4	5.26	674.21	212,376	83.61
38. Acute tonsillitis	303	.4	297	108	2.81	357.61	108,356	29.48
39. Inguinal hernia	286	.4	277	261	3.64	584.75	167,239	29.04
40. Anxiety neurosis	286	.4	273	10	4.75	502.47	143,706	40.13
41. Pyrexia of unknown origin	285	.4	282	14	4.79	594.86	169,535	62.39
42. Alcoholic addiction	283	.4	242	15	6.06	791.88	224,102	52.07
43. Other pyelonephritis, pyelitis, and pyelocystitis	274	.4	261	36	5.37	682.49	187,002	118.94
44. Acute myocardial infarction, without mention of hypertensive disease	270	.4	246	21	10.11	1,458.70	393,849	140.74
45. Anemia, unspecified	264	.4	247	82	6.70	826.75	218,262	73.19
46. Osteoarthritis	262	.4	249	33	7.82	894.51	234,362	76.57
47. Emphysema	256	.4	212	22	8.05	867.65	222,118	111.55
48. Other and unspecified nutritional deficiency	256	.4	243	21	9.11	1,035.31	265,039	79.57
49. Current or unspecified concussion	254	.4	251	11	2.74	381.76	96,967	26.19
50. Adverse effect of drugs, unspecified	253	.4	247	10	4.61	600.57	151,944	51.16
ALL DIAGNOSES*	69,823	100.0%	49,027	9,605	5.85	\$ 826.33	\$57,521,896	\$ 50.35

*Includes diagnoses not in top 50

TABLE 5
The 50 Surgical Procedures Most Frequently Billed
and the Costs of the Stay During Which the Procedure was Done

Procedure	Adms.	% of Total Surg. Adms.	Undup. Pa- tients	Avg. Length of Stay (Days)	Avg. Cost Per Stay	Estimated Total Cost	Avg. Drug Charge
1. Episiotomy	1,759	7.8%	1,758	3.42	\$ 647.30	\$1,138,601	\$ 39.41
2. Blood Transfusion	1,110	4.9	934	12.95	1,958.82	2,174,290	220.60
3. Tubal Ligation	1,081	4.8	1,081	2.98	593.29	641,346	43.56
4. Tonsillectomy—Without Adenoidectomy	876	3.9	875	1.96	358.08	313,678	22.02
5. Cesarean Section, Type Unspecified	870	3.9	870	6.60	1,385.44	1,205,333	145.96
6. Dilatation and Curettage of Uterus	784	3.5	771	3.09	499.11	391,302	35.64
7. Circumcision	700	3.1	700	3.24	613.13	429,191	19.22
8. Cholecystectomy	663	2.9	662	10.49	1,437.21	952,870	209.58
9. Dilatation and Curettage After Delivery or Abortion	602	2.7	595	2.13	463.35	278,937	43.90
10. Low Forceps Delivery with Episiotomy	592	2.6	591	3.39	605.30	358,338	37.59
11. Appendectomy	581	2.6	579	5.58	852.23	495,146	138.30
12. Cystoscopy and Urethroscopy	495	2.2	474	6.97	972.94	481,605	93.35
13. Exploratory Laparotomy or Coliotomy	491	2.2	485	12.77	2,049.35	1,006,231	321.23
14. Abdominal Hysterectomy, or Complete Total	418	1.9	417	9.29	1,413.42	590,810	190.27
15. Repair of Inguinal Hernia	396	1.8	390	3.82	611.99	242,348	31.41
16. Other Operations for Stapes Fixation	380	1.7	367	1.39	280.83	106,715	12.07
17. Esophagoscopy and Gastroscopy	319	1.4	290	8.16	1,096.61	349,819	106.54
18. Cesarean Section, Low Cervical	306	1.4	306	6.61	1,343.57	411,132	151.33
19. Repair of Other Obstetrical Lacerations	303	1.3	303	3.29	567.85	172,059	33.74
20. Local Excision of Lesion of Skin & Subcutaneous Tissue	294	1.3	283	6.00	840.69	247,163	104.95
21. Mastectomy, Partial	261	1.2	253	3.66	607.55	158,571	34.69
22. Bronchoscopy Without Effect on Tissue or Lesion	219	1.0	206	11.04	1,549.02	339,235	142.40
23. Vaginal Hysterectomy, Total or Subtotal	208	0.9	208	7.97	1,175.70	244,546	146.76
24. Free Skin Graft to Other Sites	182	0.8	170	19.31	2,015.35	366,794	185.39
25. Dilatation of Urethra	177	0.8	175	3.79	576.66	102,067	43.37
26. Endoscopy of Colon or Rectum	177	0.8	176	7.69	1,010.37	178,835	86.30
27. Traction and External Fixation Device	170	0.8	168	11.26	1,337.46	227,368	87.61
28. Tympanoplasty	154	0.7	149	2.25	512.37	78,905	31.26
29. Radical Excision of Lesion Skin	151	0.7	148	6.64	858.75	129,671	76.05
30. Myectomy and Tenectomy, Ocular	140	0.6	135	2.32	517.15	72,401	31.51
31. Trachelectomy	138	0.6	137	2.81	515.62	71,156	31.97
32. Cardiac Catheterization	129	0.6	126	6.46	1,649.33	212,764	91.56
33. Closed Reduction of Elbow, Knee or Shoulder Fracture	128	0.6	124	3.35	468.57	59,977	20.48
34. Hemorrhoidectomy	118	0.5	115	6.64	822.18	97,017	61.15
35. Extraction of Lens Extracapsular	114	0.5	106	5.12	708.82	80,805	80.25
36. Repair of Umbilical Hernia	109	0.5	107	4.31	700.90	76,398	38.71
37. Other Plastic Operations on Tendon Fascia	106	0.5	103	5.57	899.83	95,382	33.82
38. Repair of Ventral or Incision Hernia	106	0.5	103	8.88	1,277.28	135,392	166.34
39. Other Nonsurgical Procedures	105	0.5	99	4.39	526.57	55,290	57.05
40. Operations on Arteriovenous Fistula	104	0.5	83	16.71	3,419.98	355,678	337.26
41. Adenoidectomy Without Tonsillectomy	103	0.5	102	1.73	333.54	34,355	18.77
42. Extraction of Tooth—Forceps	101	0.5	100	3.20	531.00	53,631	33.40
43. Excision of Intervertebral Cartilage	101	0.5	97	15.26	1,877.56	189,634	191.05
44. Resection of Colon	100	0.4	97	19.63	2,885.46	288,546	449.95
45. Excision of Lesion of Muscle, Tendon, Fascia	98	0.4	95	2.73	507.58	49,743	34.54
46. Craniotomy	96	0.4	93	19.51	3,863.25	370,872	430.45
47. Suture of Skin or Mucous Membrane	93	0.4	93	5.17	847.70	78,836	105.18
48. Prostatectomy, Transurethral	93	0.4	90	12.06	1,522.45	141,586	204.42
49. Removal of Fixation Device	90	0.4	89	6.01	852.34	76,711	63.43
50. Peritoneoscopy	90	0.4	90	3.10	605.95	54,536	52.94

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TABLE 6
Pharmacy Services in 1979
Services and Payments by Category of Eligibility

	Recipient Category				
	Aged	Blind	Disabled	Dependent Children	Total
Average Monthly Number of Eligible Beneficiaries	58,765	2,184	50,846	208,470	320,265
Average Monthly Number of Utilizing Beneficiaries	39,635	1,137	33,031	85,156	158,959
Percent of Utilization	67.5%	52.1%	65.0%	40.9%	49.6%
Average Cost Per Utilizing Recipient	\$108.65	\$136.93	\$146.24	\$49.23	\$84.83
Average Number of Rx's Per Utilizing Recipient	25.50	30.61	30.67	11.92	19.34
Average Prescription Cost	\$4.26	\$4.47	\$4.77	\$4.13	\$4.39

Most Frequent Drug Used By Number of Prescriptions					
Aged			Blind		
Drug Class	Number of Prescriptions	Amount Paid	Drug Class	Number of Prescriptions	Amount Paid
Diuretics	120,944	\$554,460.80	Psychotropics	3,354	\$23,029.06
Cardiac Preparations	84,760	295,492.31	Miscellaneous Agents	2,716	8,720.63
Psychotropics	84,175	515,496.02	Diuretics	2,702	13,408.42
Antiarthritics	78,490	456,420.19	Antispasmodics	2,168	6,144.38
Gastroenterics	65,040	209,423.35	Analgesics	2,161	9,395.72
Misc. Cardiovasculars	61,738	200,441.29	Gastroenterics	2,089	6,715.02
Antispasmodics	52,283	148,090.98	Antiarthritics	1,981	10,698.72
Miscellaneous Agents	47,607	159,004.60	Barbiturates	1,799	4,403.20
Analgesics	46,759	202,071.15	Penicillins	1,772	7,123.76
Miscellaneous Neurologicals	42,555	124,618.63	Cardiac Preparations	1,319	6,339.39
Others	326,470	1,440,724.53	Others	12,728	59,712.26
Total	1,010,821	\$4,306,243.85		34,798	\$155,690.56

Most Frequent Drug Use By Number of Prescriptions					
Disabled			Dependent Children		
Drug Class	Number of Prescriptions	Amount Paid	Drug Class	Number of Prescriptions	Amount Paid
Psychotropics	140,701	\$971,684.99	Miscellaneous Agents	183,958	\$572,303.87
Analgesics	75,108	345,597.52	Penicillins	178,571	717,162.02
Diuretics	73,088	357,886.44	Analgesics	70,310	289,201.58
Miscellaneous Agents	63,706	214,554.41	Erythromycin	70,094	423,457.73
Gastroenterics	56,026	184,521.04	Contraceptive Agents	56,576	293,697.15
Antispasmodics	55,508	167,618.01	Psychotropics	44,189	267,854.63
Antiarthritis	53,927	354,374.08	Dermatologicals	38,928	177,533.04
Barbiturates	48,316	116,539.54	Antispasmodics	37,833	106,933.34
Cardiac Preparations	45,601	204,477.49	EENT Preparations	37,399	130,771.87
Penicillins	42,160	177,006.82	Tetracyclines	30,610	89,325.73
Others	358,831	1,736,076.35	Others	266,741	1,123,687.51
Total	1,012,972	\$4,830,336.69		1,015,209	\$4,191,928.47
TOTAL PRESCRIPTIONS	3,073,800				
TOTAL EXPENDITURES	\$13,484,199.57				

TABLE 7

Home Health Services Provided in 1979
Analysis of Payments by Type of Service

Type of Service	Total No. of Services	Type of Service Per- centage	Payment	Payment Per- centage	Average Payment
Registered Nurse	41,943	35.1%	\$1,082,413	39.0%	\$25.81
Licensed Practical Nurse	12,675	10.6	317,596	11.4	25.06
Home Health Aide	27,121	22.7	703,948	25.3	25.96
Physical Therapist	3,461	2.9	92,103	3.3	26.61
Occupational Therapist	431	0.4	7,842	0.3	18.20
Speech Therapist	385	0.3	9,952	0.4	25.85
Medical Social Worker	1,504	1.3	41,165	1.5	27.37
Medical Supplies	25,295	21.2	253,313	9.1	10.01
Other	6,511	5.5	270,210	9.7	41.50
TOTAL	119,326	100.0%	\$2,778,542	100.0%	\$23.29

TABLE 8

Home Health Services—1972-1980

FISCAL YEAR	Undup. Recip.	Changes From Previous Year Recip.	Percent	Cumulative Percent Change	Serv- ices	Changes From Previous Year Service	Percent	Cumulative Percent Change	Payment	Changes From Previous Year Amount	Percent	Cumulative Percent Change
1972	1,898	+ 27	--	--	58,858	+ 6,151	--	--	\$ 486,271	+\$111,365	--	--
1973	2,231	+333	+17.5	+ 17.5	62,559	+ 3,701	+ 6.3	+ 6.3	652,704	+ 166,433	+34.2	+ 34.2
1974	2,034	-197	- 8.8	+ 7.2	49,819	-12,740	-20.4	- 15.4	629,633	+ 23,071	- 3.5	+ 29.5
1975	2,244	+210	+10.3	+ 18.1	59,660	+ 9,841	+19.8	+ 1.4	876,057	+ 246,424	+39.1	+ 80.2
1976	3,113	+869	+38.7	+ 64.0	82,013	+22,353	+37.5	+ 39.4	1,329,642	+ 253,585	+51.8	+173.1
1977	4,006	+893	+28.7	+111.6	103,042	+21,029	+25.6	+ 75.1	1,735,402	+ 405,760	+30.5	+256.9
1978	4,591	+585	+14.6	+141.9	113,264	+10,222	+ 9.9	+ 92.4	2,263,620	+ 528,218	+30.4	+365.5
1979	4,997	+406	+ 8.8	+163.3	119,368	+ 6,104	+ 5.4	+102.8	2,778,542	+ 514,922	+22.7	+471.4
1980	5,393	+396	+ 7.9	+184.1	130,132	+10,764	+ 9.0	+121.1	3,366,287	+ 588,285	+21.2	+592.4

FISCAL YEAR	Average Payment Per Un- duplicated Recip.	Change From Previous Year Amount	Percent	Cumulative Percent Change	Avg. Paymt. Per Serv- ice	Change From Previous Year Amount	Percent	Cumulative Percent Change
1972	\$256.20	+\$55.82	--	--	\$ 8.12	+\$1.01	--	--
1973	292.56	+ 36.36	+14.2	+ 14.2	10.43	+ 2.31	+28.5	+ 28.5
1974	309.55	+ 16.99	+ 5.8	+ 20.8	12.64	+ 2.21	+21.2	+ 55.7
1975	390.40	+ 80.85	+26.1	+ 52.4	14.68	+ 2.04	+16.1	+ 80.8
1976	427.13	+ 36.73	+ 9.4	+ 66.7	16.21	+ 1.53	+10.4	+ 99.6
1977	440.25	+ 13.12	+ 3.1	+ 71.8	16.81	+ 0.60	+ 3.7	+107.0
1978	493.06	+ 52.81	+12.0	+ 92.5	19.99	+ 3.18	+18.9	+146.2
1979	556.04	+ 62.98	+12.8	+117.0	23.28	+ 3.29	+16.5	+186.7
1980	624.29	--	--	+143.7	25.87	+ 2.59	+11.1	+218.6

TABLE 9
Skilled Nursing Home Services—1972-1979

FISCAL YEAR	Number of Un- duplic- ated Recip.	Changes From Previous Year		Cumulative Percent Change	Total Amount Paid	Changes From Previous Year		Cumulative Percent Change	% of Total Charg- es Paid
		Recip.	Percent			Amount	Percent		
1972	5,930	--	--	--	\$15,119,360	--	--	--	83.2%
1973	5,797	-133	- 2.2	- 2.2	16,002,069	+\$ 882,709	+ 5.8	+ 5.8	82.1
1974	6,095	+298	+ 5.1	+ 2.8	15,969,680	- 32,389	- 0.2	+ 5.6	80.8
1975	6,227	+132	+ 2.2	+ 5.0	18,500,480	+ 2,530,800	+15.9	+22.4	79.3
1976	6,311	+ 84	+ 1.4	+ 6.4	20,894,787	+ 2,394,307	+12.9	+38.9	75.5
1977	6,417	+106	+ 1.7	+ 8.2	22,905,980	+ 2,011,193	+ 9.6	+51.5	76.7
1978	7,318	+901	+14.0	+23.4	23,092,800	+ 186,820	+ 0.8	+52.7	78.0
1979	7,147	-171	- 2.3	+20.5	26,461,626	+ 3,368,826	+14.6	+75.1	78.0

FISCAL YEAR	Average Program Payment Per Day	Changes From Previous Year		Cumulative Percent Change	Average Total Charge Per Month	Changes From Previous Year		Cumulative Percent Change
		Amount	Percent			Amount	Percent	
1972	\$15.72	--	--	--	\$535.47	--	--	--
1973	16.30	+\$0.58	+ 3.7	+ 3.7	564.87	+\$29.15	+ 5.4	+ 5.4
1974	16.79	+ 0.49	+ 3.0	+ 6.8	562.75	- 2.12	- 0.4	+ 5.1
1975	18.80	+ 2.01	+12.0	+19.6	691.59	+128.84	+22.9	+29.2
1976	21.75	+ 2.95	+15.7	+38.4	746.06	+ 54.47	+ 7.9	+39.3
1977	24.55	+ 2.80	+12.9	+56.2	808.77	+ 62.71	+ 8.4	+51.0
1978	27.55	+ 2.70	+11.0	+73.3	880.09	+ 71.32	+ 8.8	+64.4
1979	30.30	+ 3.05	+11.2	+92.7	944.62	+ 64.53	+ 7.3	+76.4

TABLE 10
Intermediate Care Services—1973-1980

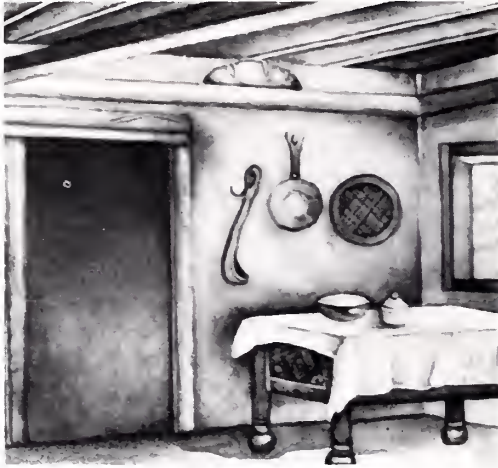
FISCAL YEAR	Number of Un- duplic- ated Recip.	Changes From Previous Year		Cumulative Percent Change	Total Amount Paid	Changes From Previous Year		Cumulative Percent Change
		Number	Percent			Amount	Percent	
1973	N/A	--	--	--	\$ 3,131,688	--	--	--
1974	1,212	--	--	--	4,477,898	+\$ 1,346,210	+ 43.0	+ 43.0
1975	2,191	+ 979	+80.8	+ 80.8	12,455,108	+ 9,323,420	+178.1	+ 297.7
1976	3,719	+1,528	+69.7	+206.8	21,391,019	+ 8,935,911	+ 71.1	+ 583.1
1977	4,940	+1,221	+32.8	+307.6	35,131,399	+ 13,740,380	+ 64.2	+1,121.8
1978	5,563	+ 623	+12.6	+359.0	43,952,247	+ 8,820,848	+ 25.1	+1,308.5
1979	7,878	+2,315	+41.6	+550.0	61,138,327	+ 17,186,080	+ 39.1	+1,852.2
1980	9,063	+1,185	+15.0	+647.8	83,184,312	+ 22,045,985	+ 36.1	+2,556.2

FISCAL YEAR	Average Monthly Payment Per Un- duplic- ated Recip.	Changes From Previous Year		Cumulative Percent Change
		Amount	Percent	
1973	\$233.38	--	--	--
1974	307.88	+\$ 74.50	+31.9	+ 31.9
1975	473.72	+ 165.84	+53.9	+103.0
1976	479.31	+ 5.59	+ 1.2	+105.4
1977	592.63	+ 113.32	+23.6	+153.9
1978	658.40	+ 65.77	+11.1	+182.1
1979	646.72	- 11.68	- 1.8	+177.1
1980	764.87	+ 118.15	+18.3	+227.7

David T. Allen, M.D.
W. Grady Stumbo, M.D.

Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.¹



Today's Tradition: **Tegopen**[®] (cloxacillin sodium)

**for the treatment* of
known or suspected
staphylococcal
infections such as:**

- Acute sinusitis
- Furunculosis and carbuncles
- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
- Infected sebaceous cysts

**In serious, deep-seated
staph infections, 500 mg
q.i.d. dosage is
recommended.†**

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.²
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin. ‡²
- 88% of *S aureus* has been reported resistant to penicillins G and V. ‡²
- Staph resistance to erythromycin may develop during a course of therapy.³



Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

Tegopen[®] (cloxacillin sodium) **Today's Penicillin for Today's Physician**

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note. The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

Tegopen® (cloxacillin sodium)

Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information, consult Official Package Circular.
(12) 9/11/75

INDICATIONS

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE

Adults: 250 mg q 6h

Children: 50 mg / Kg / day in equally divided doses q 6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B. INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED

Capsules—250 mg. in bottles of 100; 500 mg. in bottles of 100
Oral Solution—125 mg / 5 ml. in 100 ml. and 200 ml. bottles

BRISTOL®

Bristol Laboratories
Division of Bristol-Myers Company
Syracuse, New York 13201



Two convenient dosage forms: 100 mg (white) and 300 mg (peach) Scored Tablets



Tablets imprinted with brand name to assist in tablet identification.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

How's Your Cost Consciousness?

March—Decrease the use of critical care units. Be highly selective in admitting to critical care. Reduce stays in coronary and critical care units. Critically evaluate neonatal intensive care units. Have hospital accounting post up-to-the-minute bills in long-term critical care cases.

Encourage hospitals to appoint resource allocation boards with physicians and administration so as to have input with all major building programs, expansion, equipment purchasing, new programs, etc. Encourage the reduction of unused beds and even the closure of wings if underutilized. Discourage hospital competition for expensive services.

Current Medical Diagnosis & Treatment 1981

Edited by Marcus A. Krupp, M.D. and Milton J. Chatton, M.D. with Associate Authors, Lange Medical Publications, 1981, 1100 pages

The annual modernization of this rapidly becoming essential book is a welcome happening. Each chapter has been gleaned of its dated material and rejuvenated with accepted dogma from recent references. Many segments have bibliographies covering only the last three years, trusting the reader to use these papers and books as his starting gate.

Initially the physical examination, history taking, symptom recognition and elemental anatomy are allowed their customary role, by the year unchanged. Then an anatomy based organization of symptoms and diseases takes up better than the first 1/3 of the book. Basically medical or surgical problems are occasional although somewhat awkward neighbors. To the frontliner these artificial separations are nevertheless useful for quick references.

Disorders of nervous, endocrine and metabolic systems are also included. Particularly in the latter sections, very clear and handy tables give the reader yet another way to organize medical information. Nutrition and its disorders are finally accorded some importance as necessary inclusions for the practitioner whose medical teachings in these areas has been neglected.

Eight chapters in the heart of the book cover the spectrum of infectious disease and its chemotherapy. More balance in this current edition is accorded to the helminthic and protozoal diseases which have such relevance to the masses. Since this book has multilingual publication, some respect for the extra-American medicine is given.

The concluding chapters uncomfortably marry diverse subjects such as poisoning, medical genetics, malignant and immunologic disorders in a montage manner. This arrangement is editorial license for claiming this book as a comprehensive desk reference.

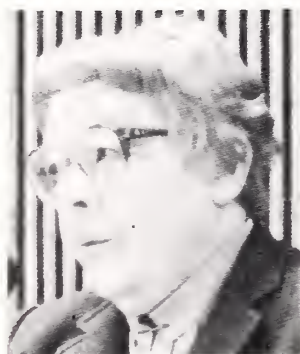
These subjects are belabored with detailed information, the absence of which would make them uninformative. As such the reading is tedious and difficult.

The appendical pages are filled with handy guides, data and instructive material. A comprehensive index ends the book and readily places the reader with access to the information packed 1000 plus pages.

This current paperback (1981) is well worth the modest investment, and except for the specialist expertise, we can all modernize our educational foundation.



W. Grady Stumbo, M.D., Secretary, Department for Human Resources, will highlight the Thursday afternoon program of the Synergy in Leadership Conference scheduled for April 1-2, 1981, with a presentation on the Department and budgetary restraints affecting policies and programs. Additional comments and background will include possible legislation for the 1982 General Assembly and his views of the future for the Department for Human Resources.

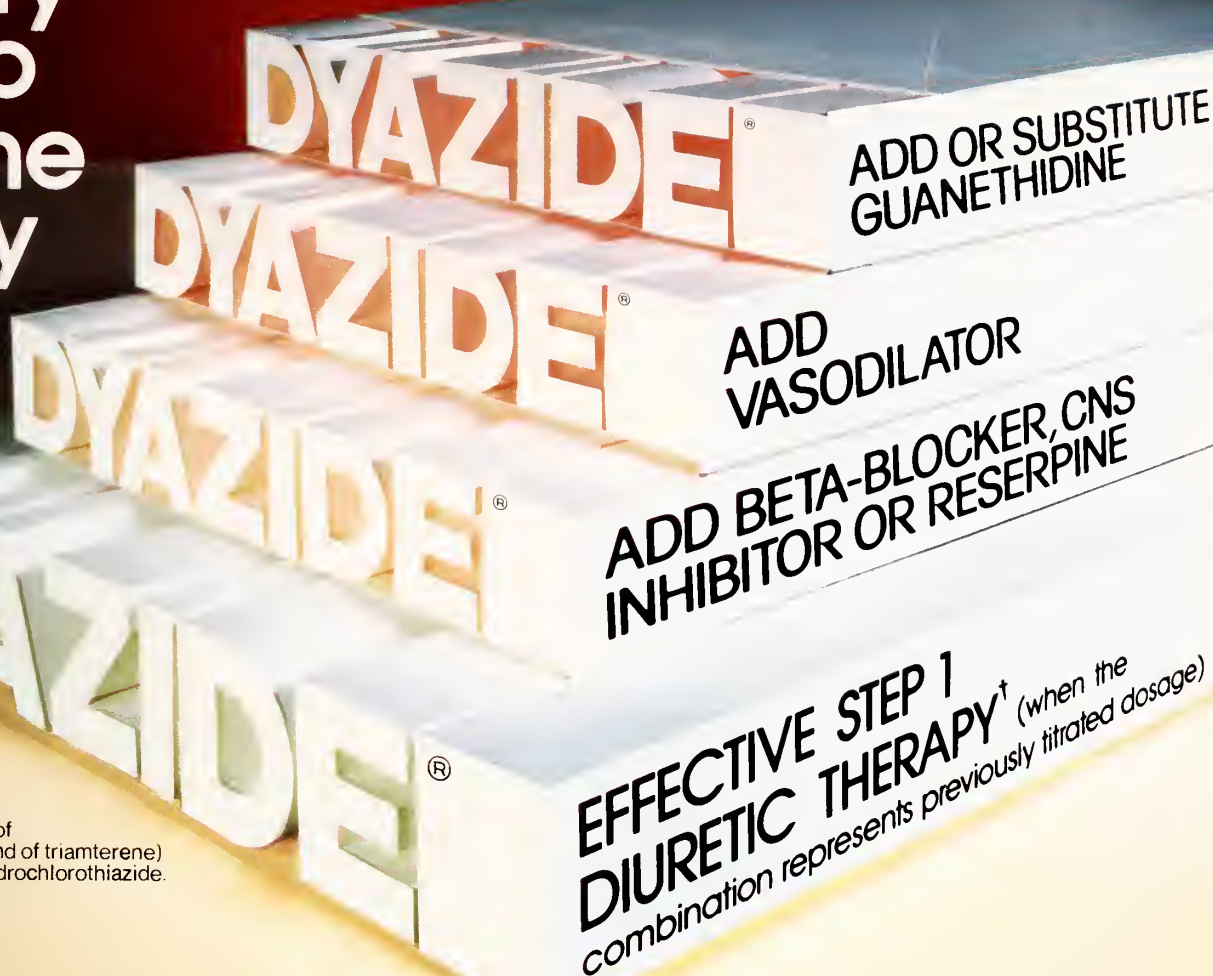


Betty Jane Anderson, Assistant General Council of the American Medical Association, will speak on medical ethics and the continuing FTC confrontation with AMA and various other legal actions confronting organized medicine during the 1980's. Miss Anderson has been extensively involved in the field of anti-trust and health laws over the past 15 years in which she has been employed by the American Medical Association. She has lectured and written extensively in both the fields of anti-trust and health laws during her career.

In Hypertension*...When You Need to Conserve K⁺

Every Step of the Way

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.



†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent) and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, throm-

bocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transiently elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with

possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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a SmithKline company
Carolina, P.R. 00630

Colleges shouldn't have to choose between lighting their buildings and enlightening their students.

—Thomas Edison
Inventor

There's nothing more frustrating for a scientist than to be on the verge of a great discovery and not be able to afford the equipment he needs. I know.

When I was a boy, I had to work overtime to get the money I needed for equipment. But somehow I eventually got what I had to have for my experiments.

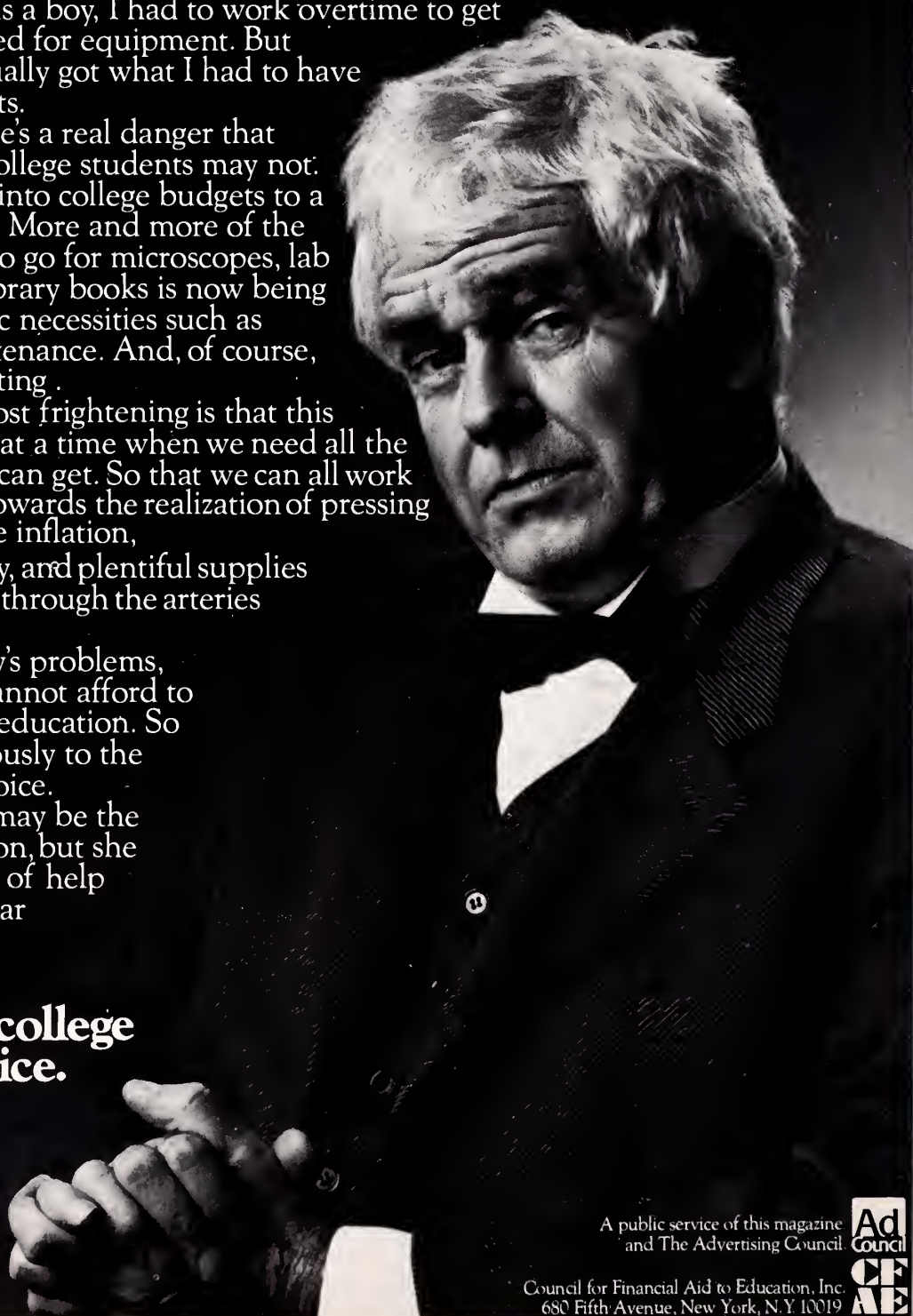
Today there's a real danger that many American college students may not. Inflation is eating into college budgets to a dangerous degree. More and more of the money that used to go for microscopes, lab equipment and library books is now being consumed by basic necessities such as heating and maintenance. And, of course, my specialty—lighting.

What is most frightening is that this squeeze is coming at a time when we need all the trained minds we can get. So that we can all work more effectively towards the realization of pressing goals: manageable inflation, revitalized industry, and plentiful supplies of energy coursing through the arteries of this country.

With today's problems, America simply cannot afford to have second-best education. So please give generously to the college of your choice.

Necessity may be the mother of invention, but she needs a great deal of help if she's going to bear children.

Help!
Give to the college
of your choice.



A public service of this magazine
and The Advertising Council

Council for Financial Aid to Education, Inc.
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S p e c i a l M e e t i n g

House Of Delegates

April 16, 1981

KMA President Frank R. Pitzer, M.D., has officially called the House of Delegates into special meeting on April 16, 1981, at 10:00 a.m., in the Ramada Inn/Bluegrass Convention Center, Louisville. This meeting was provided by Substitute Resolution R, passed by the House in September. Resolution R deals with concerns about the Medicaid Program.

All Delegates registered as of Wednesday, September 24, 1980, have been contacted about the meeting and will receive background material directed by Resolution R in the coming weeks.

Some matters that precipitated the current concern with Medicaid were physician input into the Program, administrative procedures followed by KMAP, and reimbursement profile updates. In January, the Department for Human Resources announced expenditure reductions related to all services covered by Medicaid and, in the case of funds for physician reimbursement, the cost cuts were projected to amount to \$1.9 million.

Officers of the Association, Board of Trustees and Executive Committee of the Board have held numerous meetings and contacts as issues have developed on this subject. As directed by Resolution R, the Board feels that all material that has been considered should be presented to the House of Delegates for any decisions or further actions they feel the Association should take on behalf of the membership.

The Delegates' meeting will be held in the Julia Belle Room of the Convention Center, and Delegates may register beginning at 9:00 a.m. on the 16th. For further information please contact the KMA Headquarters Office.

Digest of Board of Trustees Meeting December 3-4, 1980

The KMA Board of Trustees met in regular session at the KMA Headquarters Building on December 3 and 4, 1980. President Pitzer related events that had occurred in meetings in which he had been engaged regarding various aspects of the Medicaid Program and Appropriateness Review.

David T. Allen, M.D. Commissioner for Health Services, was present to discuss cost cuts being proposed in the Medicaid Program. (An article explaining the cost cut proposals is printed elsewhere in this issue of the *Journal*.) Doctor Allen also reported on activities of the Certificate of Need Board and stated that the health planning and licensure/regulatory functions would soon be separate.

S. Randolph Scheen, M.D., Secretary-Treasurer, gave a brief synopsis of Headquarters activity since the last Board meeting. He reported that as of November 30, 1980, KMA had a total membership of 3,639, compared to 3,508 the same time the previous year. Routine reports were also made by representatives of the Kentucky State Board of Medical Licensure; the Kentucky Peer Review Organization; and the Kentucky Medical Insurance Company.

Representatives of the Physicians' Insurance Company of Ohio were in attendance to outline PICO's proposal to offer a life insurance program for Kentucky physicians with policies to be sold through the KMA Insurance Agency. The Board voted to accept the rec-

ommendation of the KMA Executive Committee that the Board endorse PICO's life insurance proposal, and that it endorse in principle PICO's offering of property and casualty coverages. It was reported that before rates can be quoted for these lines of insurance, they must first be filed with the Kentucky Department of Insurance for approval.

The Board voted to submit the name of Fred C. Rainey, M.D. for reappointment to the AMA Council on Legislation; and the name of David B. Stevens, M.D. for appointment to the AMA Council on Long-Range Planning and Development.

Action was also taken to resubmit the name of Robert N. McLeod, Jr., M.D., Somerset, for another term on the Advisory Council for Medical Assistance, which is appointed by the Governor.

E. C. Seeley, M.D. was in attendance to address the issue of the recently-abolished Kentucky Drug

Formulary Council, and a proposal for a Negative Formulary, a list of inequivalent drugs which could not be substituted. After discussion, the Board voted to adopt a position of opposition to a Negative Formulary.

In other action, the Board endorsed the Kentucky Diabetic Screening Program and a Health Careers Opportunity Program sponsored by the University of Louisville.

At the request of representatives of the Northern Kentucky area, the Board agreed to contact the Secretary for Human Resources, W. Grady Stumbo, M.D., and through him request of Governor Brown that the Northern Kentucky area either be made a separate Kentucky Health Systems Agency or a part of an existing Kentucky HSA. The three Northern Kentucky counties are currently included in an Ohio HSA.

The next scheduled meeting of the Board of Trustees was set for April 1, 1981.



April 1-2, 1981

Tony Goetz is a former Executive Director of the Eastern Kentucky Health Systems Agency (EKHSA) and has served in many capacities in the health field. In July, 1980, he was appointed Associate Dean for Planning for the University of Kentucky College of Medicine. Mr. Goetz' topic will be "HSA, SHCC and the CON Game", a discussion of potential effects of health planning on the practice of medicine.

Doctor Rainey is Elected Secretary of AMPAC

Fred C. Rainey, M.D., an Elizabethtown family physician and former President of the Kentucky Medical Association, was elected Secretary of the American Medical Political Action Committee (AMPAC) Board of Directors at the Board's Annual Meeting in January. AMPAC is the political arm of organized medicine and is considered to be one of the most effective political action committees in the United States.

Doctor Rainey has served as AMA Delegate from Kentucky since 1974 and is a member of the AMA Council on Legislation. A former Chairman of the KMA Committee on State Legislative Activities, he continues to serve KMA as Chairman of the Committee on National Legislative Activities.

Active in community affairs, Doctor Rainey is a former President of the Kentucky Jaycees and Vice President of the United States Jaycees. He has served on the boards of both local and State Chambers of Commerce and is presently a member of the Elizabethtown City School Board. A recipient of numerous awards and honors, Doctor Rainey was named Citizen Doctor of the year by the KAFP in 1968.

The Kentucky Medical Association takes great pride in announcing Doctor Rainey's noteworthy achievement.

REPORT OF 14th TRUSTEE DISTRICT

In the four years that I have been a member of KMA, I have felt that this District has had little intercommunication. There also appeared to be less than better representation by the various county societies at the state level. Hopefully, each individual society can be encouraged to send a representative to KMA to allow communication at the state level, but more importantly, there needs to be more communication on a regional level. This last objective may be best met by quarterly meetings at a central location of individual representatives of the component societies. This will be the main objective for this year.

I would encourage those who feel they are too busy to become involved to remember that strength lies in numbers. For our voice to be heard, we must maximize the number of representatives at the state level. When new physicians settle in your area, encourage

their membership in KMA and AMA, and inform KMA Headquarters as soon as possible of any new memberships.

I ask the indulgence of this District to be patient as I attempt to begin to meet with the individual societies, as I serve also as Chief of Medical Staff for the Methodist Hospital this year. There will be conflicts which I will endeavor to resolve as soon as possible, and to keep the District as fully informed as possible of happenings in Louisville.

Charles G. Nichols, M.D.

Headquarter's Activity

APRIL

- 1 Board of Trustees, Louisville
- 1-2 Synergy in Leadership, Louisville
- 14 *Journal* Editors, Louisville
- 21-22 New Physicians' Workshops, Executive West, Louisville

MAY

- 12 *Journal* Editors, Louisville
- 21 Board of Medical Licensure, Louisville
- 27 Allied Health CEO's, KDA Building, Louisville

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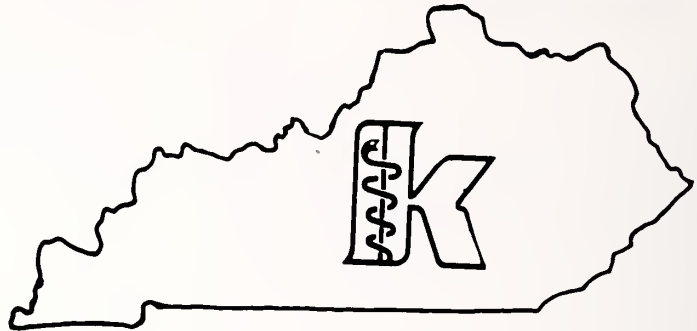
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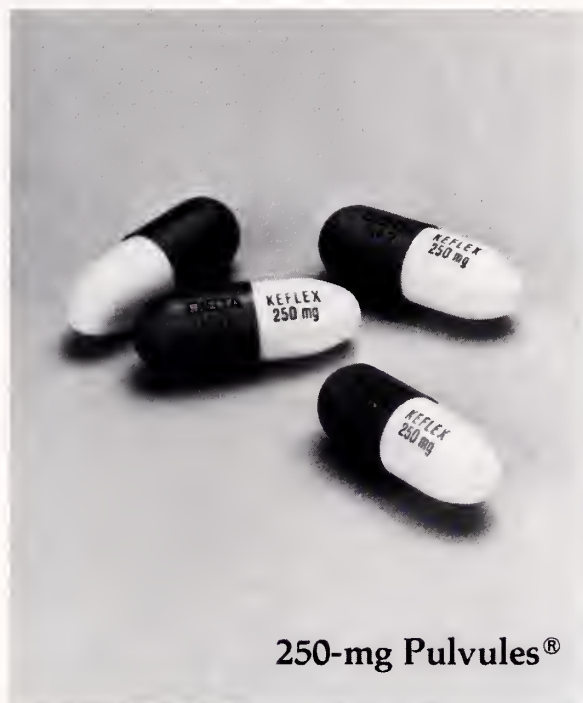
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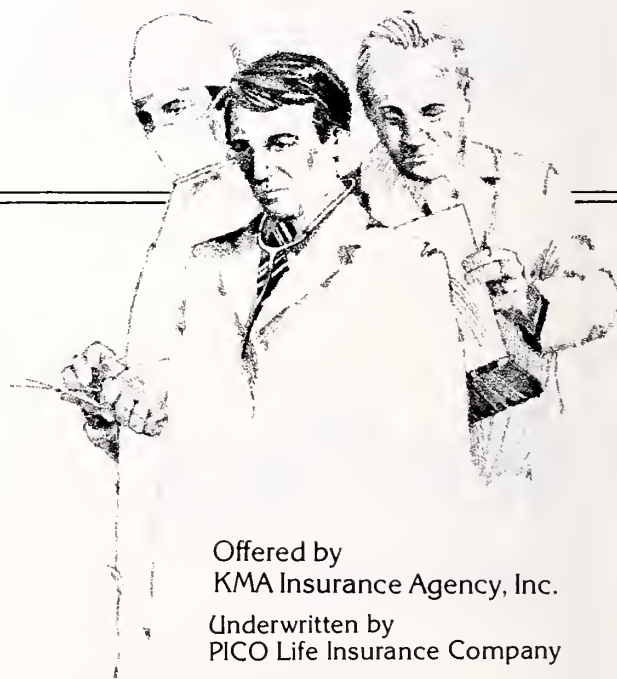
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Volume 79
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Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to decrease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgeable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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- 2 26th Annual Spring Clinical Conference, Lexington Clinic, Lexington
- 2-4 KY Ob-Gyn Society Spring Scientific Meeting, Hyatt Regency Hotel, Lexington
- 3-4 Practical Approach to Ophthalmic Genetics, Hyatt Regency Hotel, Lexington*
- 10-11 Endocrinology for the Practicing Physician, Hyatt Regency Hotel, Lexington*
- 18 18th Annual Oropharyngeal Cancer Symposium, Health Sciences Center, Louisville
- 22-25 High Risk Pregnancy, Hyatt Regency Hotel, Louisville**

MAY

- 6-9 62nd Annual Meeting Virginia Society of Ophthalmology and Otolaryngology, Inc., Virginia Beach, VA
- 8 Pediatric Adolescent Gynecology, Executive West, Louisville**
- 21 Allergy Immunology, Hyatt Regency, Louisville**

JUNE

- 14-19 Sixth Annual Family Medicine Review, Hyatt Regency, Louisville**

JULY

- 31-2 E.N.T. Symposium for The Family Physician, The Lodge in Vail, Colorado***

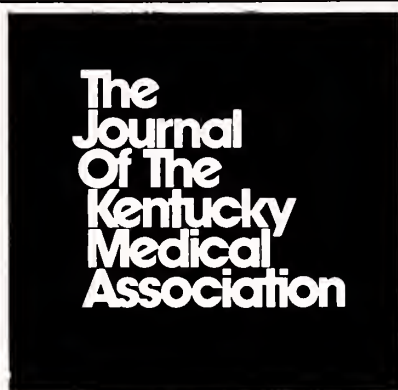
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Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, throm-

bocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transiently elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with

possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

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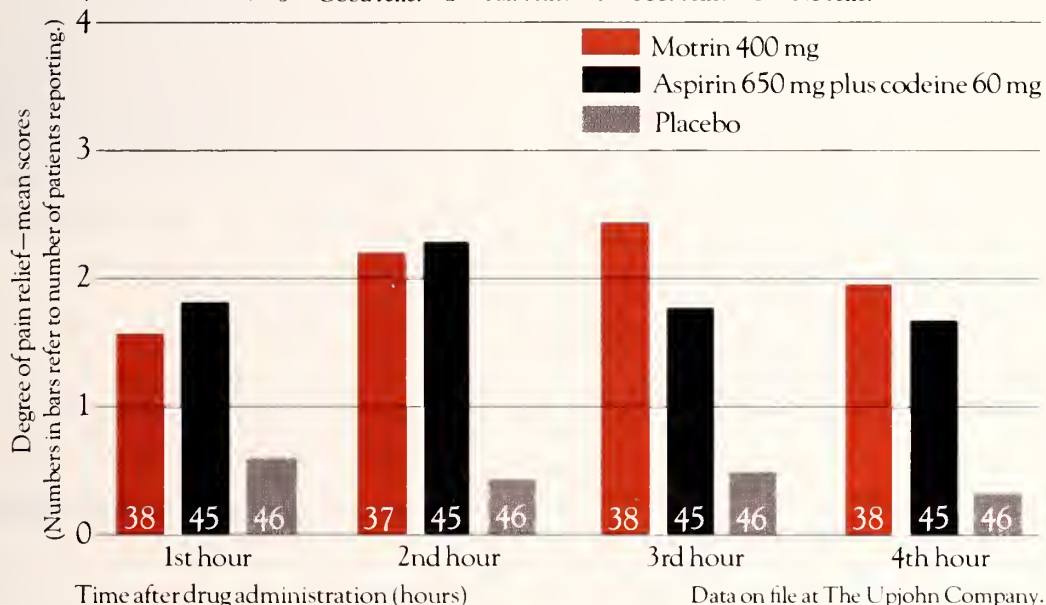
In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval.

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Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

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Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions: *Aspirin:* Used concomitantly may decrease Motrin blood levels.

Coumarin: Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea, epigastric pain, heartburn, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness, headache, nervousness. **Dermatologic:** Rash (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

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PRESIDENT'S PAGE



HISTORIANS will record 1981 as the end of one era and a new beginning in society's approach to government. The historic turnaround will be from more government to less. The big, all encompassing, provider government will pass into a remote era and Washington will become a diminishing force in American life, if President Reagan's "New Beginning" philosophy and program is implemented.

Government has grown in size, power and influence over citizen's lives year by year. Guidelines, regulations, inflation, excessive government spending, economic control, excessive taxation, all have become an expected and accepted way of American life in the past 50 years. Great society budgets have resulted in citizens receiving more and more generous federal programs and benefits every year. Excessive government has resulted in overtaxation to maintain programs for social change, not legitimate government purposes.

We have finally realized that government cannot be all things to all people without limits. Even the greatness of the American people and their ability to produce has limits. We have finally learned that "he who pays the piper, calls the tune." We cannot have all powerful government providing all things and maintain a free, independent people.

The American people have been challenged to change. Will we be able to accept this challenge of moving from more to less government? Will we be able to accept "a new beginning" when it affects our generous federal benefits?

Physicians and health care will be impacted greatly by this challenge to change. Medicare, Medicaid and other federal programs have been a significant part of our health care industry in recent years. Can we as physicians accept a "new beginning" without the excessive federal dollars forced into our world by government? Have we become so dependent on federal dollars that we will accept less than freedom and independence?

My prediction is that physicians will accept and welcome the challenge to a "new beginning." Physicians have always been productive and independent and when the yoke of excessive government is removed from our backs, we will once again be masters of our own course and destiny. A course which has produced the highest standard and quality of medical care in the history of mankind.

Frank R. Pitzer, M.D.
KMA President

1980 Blue Shield Report To Physicians

Membership	(as of December 31)	1980	1979
Total Membership.....		1,400,000	1,387,765
Net Enrollment Gain or Loss (Members).....		12,235	15,024
Percent of Net Increase or Decrease.....		(+)	1.06%
Employer Groups Enrolled.....		2,255	

Claims Experience	Number of Services Paid		Amount Paid for Member Services	
Type of Contract	1980	1979	1980	1979
Indemnity.....	822,590	609,608	\$30,128,896	\$24,473,344
Usual, Customary and Reasonable* ...	979,866	673,470	45,560,780	36,238,135
Extended Benefits, BCBS Medicare Supplement, Major Medical and F.E.P. Supplemental.....	433,609	318,956	40,239,215	28,345,596
Grand Totals.....	2,236,065	1,602,034	\$116,142,891	\$87,057,075

*83 Usual, Customary and Reasonable claims, representing less than .008% of total claims submitted, required Peer Review.

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Infertility in Association with High-Risk Obstetrics

Joseph S. Sanfilippo, M.D.

INFERTILITY, defined as the inability to conceive after one year of unprotected intercourse, affects 15% of all couples. Statistics by Wilson reveal that 30-60% of infertile couples achieve conception with appropriate evaluation and therapy.¹ Infertile patients who ultimately conceive are "high-risk" for several reasons. These include the occurrence of spontaneous abortion, ectopic pregnancy and perinatal death. A study by Weir and Hendricks addresses this very point. (Table 1).²

In essence, a total fetal loss of 35.7% vs. 13.4% in the control population reflects the high-risk obstetrics associated with infertile couples. One should consider pregnancy in an infertile couple as "high-risk."

When a physician or health professional encounters a couple with evidence of infertility, evaluation should include a history, which assesses menstrual cycles, dysmenorrhea, perirectal tenderness and length of time attempting conception. Frequency of coitus, postcoital activities and use of lubricants during intercourse are also of

concern. Additional history should include inquiry regarding diethylstilbestrol exposure, venereal disease, problems associated with prior pregnancies or history of instrumentation of the uterine cavity. These historical questions are in addition to the medical, surgical and family history. It is imperative that the male be assessed as well. Statistics reveal that 40% of infertility is associated with the male, 40% with the female and 20% with both.

The physical examination should assess the general state of nutrition. In addition to the overall physical examination, emphasis should be placed on evaluation of the thyroid gland, breasts, including attempt to elicit any nipple discharge, and abdominal and pelvic organ assessment.

The diagnostic evaluation of the infertile couple includes semen analysis, basal body temperature graph to determine if ovulation has occurred (accurate in 95%), as well as evidence for a stairstep rise in temperature suggestive of a luteal phase defect. A hysterosalpingogram, endometrial biopsy and postcoital examination are integral parts of the investigation.

From the University of Louisville, Department of Obstetrics and Gynecology, Louisville, KY

INFERTILITY—Sanfilippo

TABLE I
PREGNANCY OUTCOME IN FERTILE AND INFERTILE PATIENTS²

	Infertile Patients (per 100 couples)	Fertile Patients
Surviving Live Births	64.3	86.6
Total Fetal Loss	35.7	13.4
Spontaneous Abortion	28.7	10.9
Ectopic Pregnancy	2.4	0.4
Perinatal Death	3.6	2.1

In evaluating the infertile patient, the endometrial biopsy is necessary to document if ovulation is occurring and if there is any evidence of progesterone deficiency in the form of luteal phase defect. What happens if the biopsy obtained two days before the onset of expected menses is performed when an early gestation exists? Karrow *et al* reviewed 18 pregnancies in which a biopsy was performed in the cycle of conception.³ There was a lower incidence of spontaneous abortion compared with general population. No increase in prematurity or congenital anomalies occurred. This is possibly associated with increased decidual reaction and better implantation.

The role of hysterosalpingography in infertility has been previously addressed by the author.⁴ It may lead to a diagnosis of intrauterine synechiae (Asherman's syndrome) or other uterine or tubal abnormalities. Asherman's syndrome carries a high reproductive failure. Statistics from the University of Louisville revealed for patients attempting a pregnancy after therapy for Asherman's the incidence of prematurity and spontaneous abortions was increased compared to the general population. Of 10 patients: one delivered at term, one delivered at 33 weeks, four had spontaneous abortions and four were unable to conceive.

Clomiphene (Clomid) is frequently used in the management of infertility secondary to anovulation. It has always brought up the question of teratogenicity. It is usually administered during the first part of the menstrual cycle (from days five through nine). Hence, rarely does one take it while pregnant. Congenital defects with Clomid therapy is reported at 2%.⁵ Significant problems include an incidence of multiple births of 2.8%⁶ and spontaneous abortion rate of 26.5%.⁶

Thyroid disease is associated with menstrual irregularity. Givens reports that treatment of hyperthyroidism via medical or subtotal thyroidectomy, is associated with a successful outcome of pregnancy.⁷ Hypothyroidism is best treated medically and aims to maintain thyroid stimulating hormone levels in a "normal range." Measurement of free thyroxin index is frequently helpful in assessing adequacy of therapy. There is no role for the empiric use of thyroid hormone therapy in infertile patients.

Adrenal function has an effect on infertility. Each major class of adrenal hormones must be studied. Mineralocorticoid defects have been reported to be associated with infertility. Abnormal levels of glucocorticoids are clearly associated with menstrual abnormalities and infertility, the prime example is that of Cushing's disease. The

INFERTILITY—Sanfilippo

role of excess androgen can also be associated with menstrual irregularities, as well as congenital adrenal hyperplasia. Appropriate correction of the glucocorticoid or androgen excess is frequently associated with normal menses and normal fertility.

Diethylstilbestrol exposure in utero is associated with infertility and poor reproductive outcome. Schmidt *et al* evaluated 276 females exposed in utero; of 106 attempting pregnancy, 58 had live births. Fetal wastage rates were 43% for the first pregnancy, and 37% for all pregnancies. Losses were associated with spontaneous abortion in 25%, ectopic pregnancies in 5%, molar pregnancies in 0.02% and death in utero in 4%. Fetal wastage was higher (53%), if there was evidence of vaginal adenosis or cervical hood formation.⁸ This data shows a clear impairment of reproductive ability in females exposed to diethylstilbestrol in utero.

The entity of luteal phase defect, in association with first trimester spontaneous abortion, is a constant plague to the clinician. It occurs in 3-11% of infertile couples and is divided into two types, according to Wentz, the inadequate luteal phase and the short luteal phase.⁹ The former is diagnosed by repeat serum progesterone levels and/or lag of two days or more on endometrial biopsy, when correlated with the next menstrual period. The short luteal phase is diagnosed by a basal body temperature elevation of less than 10 days in the latter part of the menstrual cycle. Treatment during pregnancy consists of 50mg progesterone vaginal suppositories daily for the first nine to 14 weeks of pregnancy. Human chorionic gonadotropin, 10,000 units, should also be administered every five days to improve corpus luteum production of progesterone. There is no specific evidence of natural progesterone supplements being associated with an increase in congenital defects.^{9,10}

As time progresses, we come upon new frontiers such as the ability to reverse sterilization. Tubal reanastomoses result in intrauterine pregnancy rates of up to 70% in well selected cases. However, the procedure is associated with a 12% incidence of ectopic pregnancy. This entity must

be ruled out in pregnant patients with prior tubal reanastomosis presenting with localized abdominal pain. In some instances, tubal reimplantation is necessary, based on amount of existing proximal fallopian tube after the sterilization procedure. According to Peterson *et al* this procedure carries a 50% incidence of intrauterine pregnancy.¹² However, the tubes are re-implanted in the endometrial cavity. This suggests the necessity for cesarean section and the potential for uterine rupture during gestation.

This overview of high-risk pregnancies, in association with infertility, is an effort to review the current state of the art. In general, the diagnostic procedures *per se* are not associated with an increase in spontaneous abortions or other complications associated with pregnancy. Appropriately administered therapeutic regimes should not result in an overall increase in incidence of congenital anomalies. If one or more spontaneous abortions have occurred, a couple with one live birth has a 25% likelihood of subsequent abortion. Research endeavors are currently underway in an effort to decrease the higher spontaneous abortion rate in infertile couples compared to the general population (25% vs. 15%). Better techniques of monitoring early gestation would seem to be the most obvious area for improvement in pregnancy outcome.

To conclude, I must re-emphasize the statement that pregnancies in infertile couples must be placed in the "high-risk" category of obstetrical care.

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Back Pain Rehabilitation Program

Jane Sauer, P.T. and David H. Thurman, M.D.

St. Anthony Hospital, Louisville, Kentucky has developed a Back Pain Rehabilitation Program as an alternative to traditional and often ineffective modes of treatment. The approach treats dysfunction and not pain and is aimed at increasing activity levels.

THE evaluation and treatment of spinal lesions in the Rehabilitation Medicine Service at St. Anthony Hospital in Louisville, Kentucky has been symptom oriented and supportive. We were dissatisfied with the results and initiated research into causes and effects of back pain. Traditional treatment consisted of hot wet packs, massage, ultrasound, cold wet packs, exercise, postural instructions, static pelvic traction (30-70 lbs), TENS and occasional whirlpool. Success was determined by a decrease in pain. The frustration developed when patients with identical diagnosis and treatment did not receive the same results. Some achieved complete relief of symptoms and others developed chronic complaints. There is very little that doctors or physical therapists can do for the chronic pain patient and treating their symptoms is unsatisfactory to patient and medical staff. In our research we found that chronic back pain is rarely due to a primary lesion, but results from a combination of risk factors; posture, body mechanics, weight, motivation, attitude, stress and activity level to name a few.¹

Realizing that functional ability should be our goal, we designed an approach which treats dysfunction and not pain and is aimed at increasing activity levels. Specifically the treatment program was based on existing programs in Europe and

California. This comprehensive and motivational rehabilitation program is called The Back School.²

The Back School was started in December, 1979. It consists of five hours of instruction and student demonstration. Students attend class one hour a day, Monday through Thursday one week and Friday of the following week. The classes are limited to five students to provide time for questions and attention to specific individual problems. The classes are administered by a licensed physical therapist upon referral of a physician.

Back injury and back pain are seldom caused by a single specific trauma, but result from multiple small incidents which tend to weaken the supporting structures of the back. This gradual weakening may lead to a specific painful event, or the development of chronic pain. For this reason students are given classes in the anatomy, pathology and kinesiology of the back, so they can better understand the causes and effects of back pain. This also helps to eliminate the fear and anxiety associated with back pain.

Traumas to the back are almost always due to postural or positioning stress in the spine. If individuals can be taught ways in which these stresses can be alleviated, the incidents of pain and injury will be greatly reduced. Each participant receives a posture analysis and is instructed in methods to correct any deviations.

Proper nutrition and diet are discussed because overweight individuals generally have added stress to the back and poor health.

From the Rehabilitation Medicine Service, St. Anthony Hospital, Louisville, KY

BACK PAIN—Sauer and Thurman

Students are instructed in a special exercise program which consists of, (1) the pelvic tilt for strengthening the abdominals and stretching the back extensors, (2) the straight leg raise for quad strengthening, (3) hip extension for gluteal strengthening, and (4) the flat footed squat for flexibility. These exercises help to strengthen the muscles that support the back and the muscles in the legs that are necessary for correct lifting.

The principles of good body mechanics are discussed for most common positions and activities. The most desired positions are those where interdiscal pressure is lowest. Students practice and demonstrate their ability to use proper body mechanics in various situations by participating in the obstacle course. The obstacle course consists of 11 activities which could injure the back or prevent recovery from an injury, if done incorrectly.³

Class time is devoted to discussion of situations at home (eg, cleaning the tub) or at work (eg, automobile tune-ups) where it may be difficult to apply the principles of good body mechanics. Solutions to these problems are developed through an exchange of ideas. The answer usually results from a change in body position during the activity or a change in some mechanical aspect of the activity.⁴ In situations that are abusive to the back and where no alternatives are available the student is advised that good health and physical fitness are the only factors that will help to prevent injury.⁵

Conscious relaxation is taught as a method to break the pain-spasm cycle, to facilitate sleep and reduce anxiety or stress.

Students are counseled on the appropriateness of various leisure activities. Walking, jogging, swimming and bicycling are activities which are good for the back. Activities such as golf, bowling, tennis and skiing are conditional activities. They may or may not be harmful depending on general fitness, stress and skill levels. Contact sports such as football and racquetball and certain calisthenics are harmful and should be avoided. Students are also encouraged to begin an aerobic exercise program to improve endurance, physical fitness and cardiopulmonary function.

Finally, guidance is offered to help each student prepare for a healthy return to normal social and work activities. This is a major goal of the Back School: to give motivational and concrete examples for an improvement in the quality of life for people with back dysfunction. They are shown that it is their responsibility with advise from the medical profession to set goals for increased activity rather than passively wait for a cure.

The Back School at St. Anthony Hospital offers Kentucky and Indiana medical and industrial communities an alternative to traditional and often ineffective modes of treatment.

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Stress Ulcer: A Selected Review

EDWIN L. ROGERS, M.D., BRACK A. BIVINS, M.D. AND WARD O. GRIFFEN, JR., M.D., PH.D.

Stress ulceration, defined as acute gastroduodenal mucosal lesions associated with critical illness, remains an incompletely defined clinical problem. Probably a combination of 1) excess acid production, 2) ineffective gastroduodenal defenses, and 3) some degree of mucosal injury with back diffusion of $[H^+]$ ions allows development of stress ulcers in a variety of clinical settings. The diagnosis is suspected with the sudden appearance of upper gastrointestinal bleeding in an appropriate clinical setting and is confirmed by endoscopy which also rules out other causes of bleeding such as Mallory-Weiss tears, chronic duodenal ulcer or varices. Non-operative means of controlling the bleeding when effective is the preferred treatment with operation reserved for the small percentage of patients who continue to bleed. Far better, however, is prevention of ulceration by maintaining gastric pH near neutral in the high risk patient. Antacids have been demonstrated to be effective in prophylaxis.

ACUTE gastrointestinal ulceration has been recognized as a complication of critical illness since Celsus' description of gastric ulcers in wounded Roman soldiers.¹ Gastroduodenal ulceration following burns, neurologic injury, multiple trauma, sepsis, hemorrhage or shock has many different names. (Table I) Acute ulcers in burn patients are termed Curling's (1842) ulcers despite earlier descriptions by Schwann (1823) and Dupuytren (1833).^{2,3,4} The association of central nervous system trauma and tumors with gastric ulceration was recognized by Cushing in 1932.³ Erosive gastritis, hemorrhagic gastritis, acute gastric mucosal bleeding and acute stress erosions are synonyms for acute ulceration following multiple trauma, sepsis, hemorrhage or shock.^{5,6,7,8} Regardless of etiology, these lesions are most commonly and succinctly referred to as stress ulcers.

Stress ulcers may be defined as acute gastroduodenal mucosal erosions associated with critical illness.⁵ These erosions may be progressive.⁹ Within the first 24 hours following injury stress ulcers appear as well demarcated 1-2 mm. in diameter shallow red based mucosal erosions which are superficial to the muscularis. By 48 hours, as

the lesion progresses, the base of the ulcer becomes black as the muscularis mucosa is eroded. Further progression over three to seven days may lead to full thickness destruction of the muscularis with submucosa edema and hemorrhage. Stress ulcers are usually multiple and occur principally in the funds and proximal stomach.⁹ An exception to this pattern occurs in burn patients where the ulcer is often solitary and is usually seen in antrum or duodenum.¹⁰

The incidence of stress ulceration varies with the patient population, type of stress and the criteria for diagnosis. For example superficial mucosal erosions have been identified in 75 to 100% of selected patients in both prospective endoscopic studies and autopsy series.^{9,11} Superficial mucosal erosions, of course, are not clinically important complications, but they do define the population at risk. When clinically apparent bleeding was used as the diagnostic requirement, 0.4% to 3.0% of combat casualties were found to have stress ulcers.^{6,7,8}

Pathophysiology

The pathologic sequence leading to stress ulceration has not been completely defined. Adverse physiologic conditions (*ie* stress) regardless of cause lead to a single response, mucosal breakdown. It is generally agreed that intraluminal hy-

ULCER—Rogers, Bivins and Griffen

**TABLE 1: Names Associated with Gastrointestinal
Ulceration of Acute Injury or Illness**

Stress Ulcer
Acute Gastritis
Acute Mucosal Lesions
Cushing's Ulcer
Curling's Ulcer
Acute Hemorrhagic Gastritis
Acute Erosive Gastritis

drochloric acid is necessary in the development of stress ulcers, but the role the acid plays is certainly not clear. There are at least three potential mechanisms for acid destruction of the mucosa:

- 1. Excess acid production
- 2. Ineffective defenses
 - a. Altered gastric mucus
 - b. Altered gastric mucosal permeability to hydrogen ions [H+]
- 3. Mucosal ischemia with inadequate clearance of back diffused hydrogen ion [H+]

Excess acid production is an attractive hypothesis that has not been confirmed experimentally or clinically. Although experimental models cannot produce gastric erosions in the absence of hydrochloric acid, the standard stress models do not cause an excess production of acid.^{11,12,13} Clinical studies have demonstrated consistent hyperacidity only in patients with Cushing's ulcer although some patients with Curling's ulcer may have elevated acids late in their course.¹³⁻¹⁸ Patients suffering from multiple trauma, sepsis, hemorrhage and shock are found to have normal or lower than normal rates of acid secretion.^{13,14,17,19}

Ineffectiveness of defense mechanisms has been postulated to explain acid injury to the mucosa in the face of low acid levels.^{20,21} There is, however, little evidence to support alterations in the composition of gastric mucus as a factor in stress ulceration.^{17,21,22} Investigations of the permeability of the gastric mucosa to hydrogen ion [H+] have been more fruitful. Several drugs and naturally occurring compounds lead to changes in the permeability of gastric mucosa to hydrogen ion [H+] with a resultant increase in the rate of back diffusion. These include ethanol, aspirin,

bile salts, acetic acid and indomethacin and may be referred to as "barrier breakers."^{23,24,25,26} Steroids potentiate the effect of the "barrier breakers" and alter mucus composition, but have not been demonstrated to cause disruption of the gastric mucosa when used alone.²⁵ Cholestyramine has been shown to decrease [H+] permeability of the gastric mucosa in the canine hemorrhagic shock model.²⁷

The role of mucosal ischemia in stress ulceration has also been studied. The gastric mucosa is quite sensitive to anoxia because of a relative inability to use anaerobic glycolysis as an alternative energy source.²⁸ There is a canine model for hemorrhagic gastritis based on mucosal ischemia.^{29,30} Mucosal pallor is often observed endoscopically in patients with stress ulcers lending further support to the concept of mucosal ischemia.^{31,32}

A combination of factors is probably responsible for stress ulceration. Gastric erosions may be produced in experimental animals without measurable back diffusion of [H+].³⁰ When gastric mucosal "barrier breakers" are added to mucosal ischemia more severe ulcers are formed.³³ Physical and emotional stress with changes in circulating humoral factors (catecholamines, etc.) may have an as yet undefined role in the development of the stress lesion.

Clinical Presentation and Management

The first clinical evidence for stress ulceration is likely to be small amounts of blood in the nasogastric aspirate, chemically detectable blood per rectum or an unexplained fall in hematocrit. This may subside or progress to massive bleeding and cardiovascular collapse. Bleeding may become apparent at any point from 48 hours to several weeks following injury in the critically ill patient. Often these patients have manifested multiple system failure with hypoxia, hypotension and oliguria.

Evidence or suspicion of bleeding should lead to assessment of the patient's volume status. In the face of hypotension other surgical causes of blood loss (ruptured spleen, ruptured aneurysm, etc.) must be excluded. Baseline laboratory studies such as hematocrit, coagulation studies

ULCER—Rogers, Bivins and Griffen

and renal function chemistries should be obtained. Plain films are usually not helpful except to rule out pneumoperitoneum.

For upper gastrointestinal bleeding endoscopy is the diagnostic technique of choice. The stomach should be emptied by nasogastric lavage and the patient stabilized before endoscopy is begun. The objective of endoscopy is to verify the diagnosis of stress ulceration and to eliminate other causes of upper gastrointestinal bleeding such as Mallory-Weiss tears, reactivation of previous duodenal ulcers or esophagogastric varices. Endoscopy is accurate in up to 90% of cases obviating the need for other more time consuming and less accurate procedures.³⁴

Angiography is reserved for endoscopic failures and therapeutic attempts to control bleeding. Barium upper gastrointestinal exam is used as a last resort because of its inability to diagnose acute mucosal lesions as the source of bleeding.³⁴

Therapy

Treatment of suspected stress ulcers should begin simultaneously with diagnostic measures. The patient should be monitored in an ICU setting and steps should be taken to assure adequate blood volume. This may include placement of a central venous line and if blood loss is estimated at over one unit or ongoing blood loss is evident, transfusions are indicated. Urine output should be monitored and used as a measure of perfusion in the absence of underlying renal disease.

Nasogastric saline lavage is used to both assess the rate of bleeding and to clear the stomach in preparation for endoscopy. The temperature of the saline irrigant has theoretic therapeutic implications. Warm saline is adequate for clearing the stomach and clotting factors are more active at body temperature. Iced saline decreases mucosal blood flow which is desirable from the aspect of acute bleeding. Iced saline lavage also inactivates clotting factors and may potentiate mucosal ischemia leading to more bleeding.

After the diagnosis of stress ulceration is made, specific attempts to control the bleeding with medical therapy are begun including lavage and controlling the gastric pH at 7.0.^{35,36} Failure of

these methods usually indicates operative intervention.

In the very high risk patient or one in which the exact source of bleeding isn't identified at endoscopy, angiography may be useful.³⁷ It can be used as a pre-operative technic for localization of the bleeding source. In selected patients an attempt to control the bleeding using autologous blood clot or muscle embolization can be done. Selective left gastric artery infusion of vasopressin has been successful in some reports.³⁷

The endoscope has also been used therapeutically to control gastroduodenal bleeding in experimental ulcers.³⁸ Many methods are being tried including electrocoagulation, electrofulguration, tissue glues, suture clips and lasers.³⁹ The safety, effectiveness and indications for use of these modalities are awaiting demonstration in controlled clinical trials.

Operative therapy is necessary for a small percentage of patients who don't respond to the first line therapy.^{40,41} The operation of choice has yet to be defined by controlled clinical trials. Most series compare survival with historical controls and have so many variables that no conclusions can be drawn from them.

Each surgical group has a preferred operation for stress ulcers, based on their experience. Wilson and his group along with Moody advocate vagotomy and drainage with oversewing of the bleeding site as the initial operation.^{11,40} Menguy reports a high incidence of rebleeding with this therapy and suggests that total or near total gastrectomy is the operation of choice.⁴¹ Most authors prefer the former and reserve total or near total gastrectomy for the severe diffuse bleeder or as the procedure for continued or rebleeding.

Prevention

With surgical mortality ranging from 30% or greater in most series, prevention is the key in stress ulcers. Presently, buffering gastric acidity with antacids is the only prophylactic measure confirmed by controlled clinical trials.⁴² Another agent being suggested for use in patients at risk is Cimetidine, an H₂ receptor antagonist.

Cimetidine's action of decreasing gastric acid secretion seems to be intuitively an attractive ad-

ULCER—Rogers, Bivins and Griffen

junct to therapy for stress ulcers. This has been supported in experimental animals both alone and in conjunction with carbonoxolone sodium, a drug used to stimulate gastric mucus synthesis.⁴³

Evidence of increased [H⁺] back diffusion in an experimental animal model pretreated with burimamide (another H₂ blocker) raises questions as to the effect of H₂ blockers on stress ulceration.⁴⁴ There is need for controlled clinical studies involving H₂ blockers and stress ulcers.

Cholestyramine, Prostaglandins and Vitamin A all have promise in preliminary studies for the prevention and treatment of stress ulcers, but still lack adequate supportive clinical trials to demonstrate safety and effectiveness.^{44,45,46}

Summary

Stress ulceration is the common response of the [H⁺] containing upper gastrointestinal tract to a wide variety of critical illnesses. This occurs via several pathogenetic routes but the end result is gastroduodenal erosion. Prevention should be the key for future investigation since surgical therapy for severe bleeding in these critically ill patients has a high mortality.

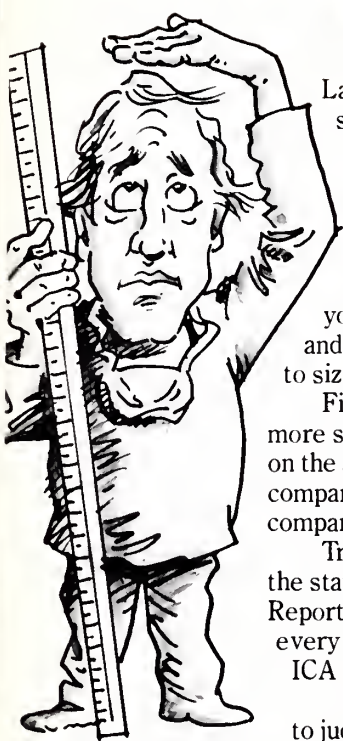
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The Metropolitan Life Insurance Company has moved the Group Health Claims Office processing all medical claims for services to eligible coal miner beneficiaries of Bethlehem Mines and the Beth-Elkhorn Division of Bethlehem Steel from Pittsburgh, Pa. to the Mideastern Head Office in Johnstown, Pa. Effective immediately, such medical claims should be mailed directly to the following new address: Metropolitan Life Insurance Company, Group Health Claims Office, Mideastern Head Office, 502 Schoolhouse Road, Johnstown, Pennsylvania 15904

MYTHS, HALF TRUTHS, FINALLY THE TRUTH MALPRACTICE



Lately, a great deal of misinformation has been circulated on the subject of professional liability insurance. At ICA we think it's time you got the facts.

JUDGING AN INSURANCE COMPANY BY ITS SIZE IS LIKE CHOOSING A DOCTOR BY HIS HEIGHT.

Big is not automatically better. Contrary to what large insurance companies would like you to believe, financial stability, experience, and quality coverage are totally unrelated to size.

First, greater size does not make a company more stable. Insurance companies are regulated on the amount of risk they may assume. A large company's ratio of risk to assets is identical to a small company's.

True measure of a company's stability comes from the state regulatory boards and "Best's Insurance Reports." ICA has met the rigid state requirements in every market where we've applied. And "Best's" has given ICA an exceptionally good policyholders' rating.

So don't be fooled by big boasts. There are better ways to judge a company. Look for experience. But make sure it's experience that counts. A huge company's years devoted to car and accident insurance won't help. Medical malpractice insurance is totally different.

At ICA we know. Professional liability is our field. Over the years we have consistently offered the strongest possible benefits combined with the highest standards for the professional handling of claims.

HOW A TORNADO IN TULSA CAN SEND YOUR MALPRACTICE RATES THROUGH THE ROOF.

Insuring with a large company has its hazards. Like tornadoes or floods. You see your rates may not be set just by your coverage. When a big company has a big loss, *all* their policies help pay.

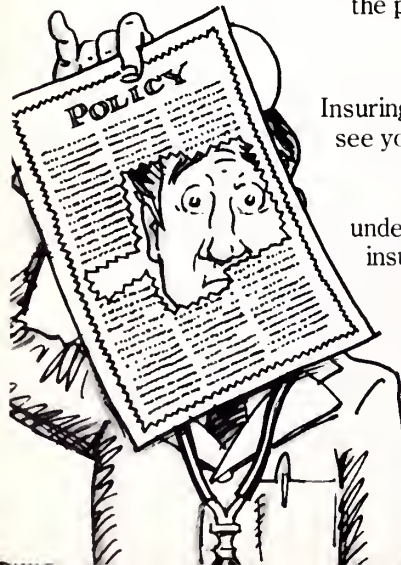
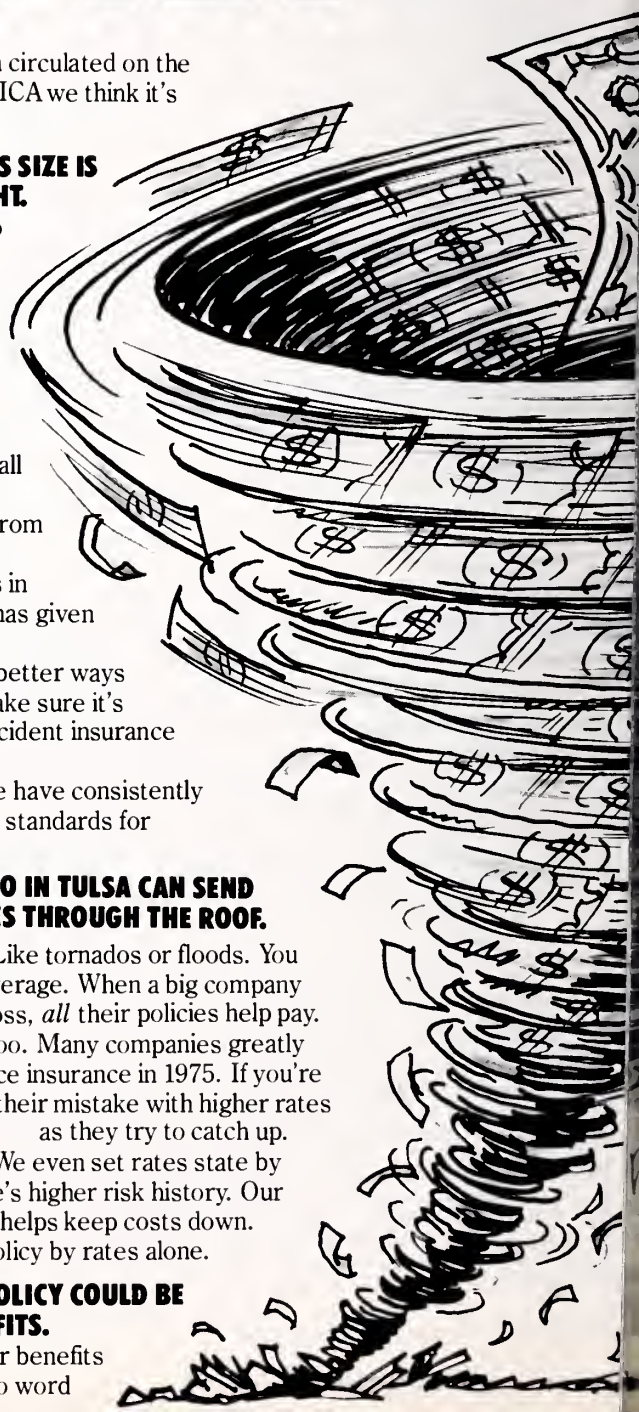
Higher rates happen another way, too. Many companies greatly underestimated the cost of writing malpractice insurance in 1975. If you're insured with them today, you're paying for their mistake with higher rates as they try to catch up.

At ICA our rates reflect true costs. We even set rates state by state. So you don't pay for another state's higher risk history. Our strong handling of frivolous claims also helps keep costs down.

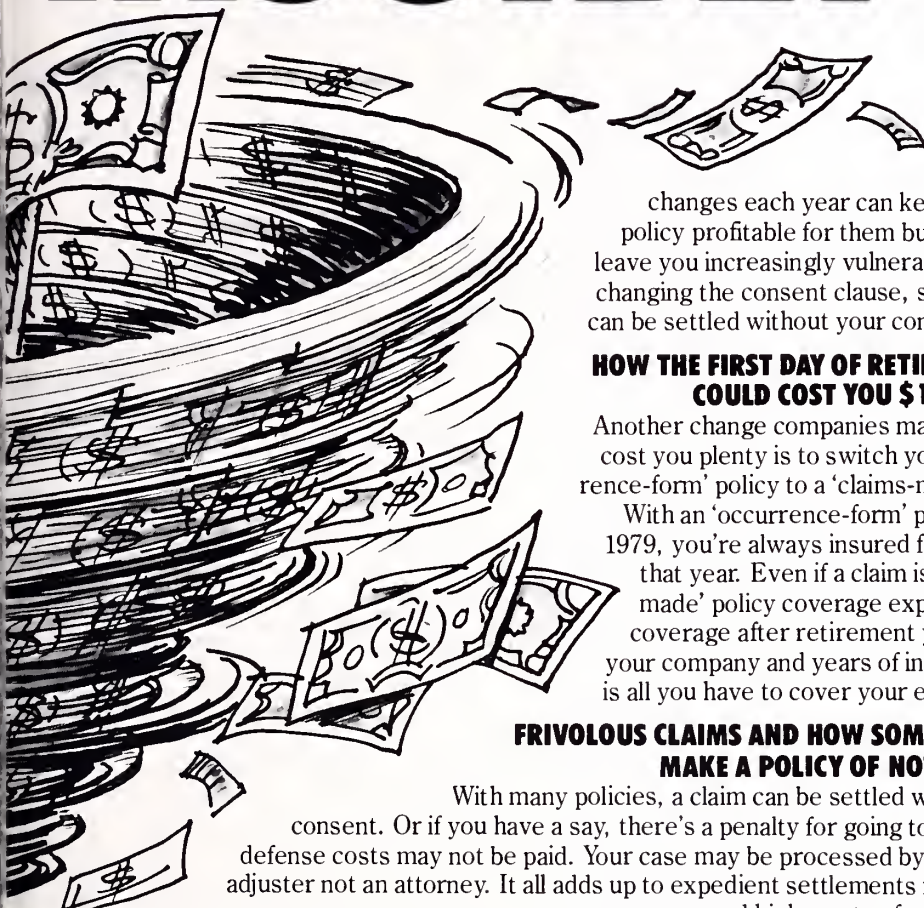
But don't judge a policy by rates alone.

HOW RENEWING THE VERY SAME POLICY COULD BE GIVING YOU VERY DIFFERENT BENEFITS.

Do your rates stay the same while your benefits shrink? At some companies one or two word



TRUTHS, AND FACTS ABOUT INSURANCE.



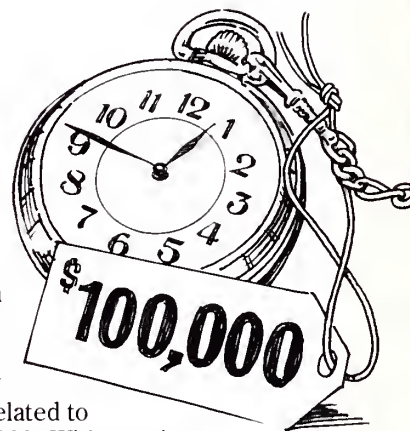
changes each year can keep a policy profitable for them but can leave you increasingly vulnerable. Like changing the consent clause, so a claim can be settled without your consent.

HOW THE FIRST DAY OF RETIREMENT COULD COST YOU \$100,000.

Another change companies make that can cost you plenty is to switch your 'occurrence-form' policy to a 'claims-made' one.

With an 'occurrence-form' policy in say 1979, you're always insured for claims related to that year. Even if a claim is made in 1999. With a 'claims-

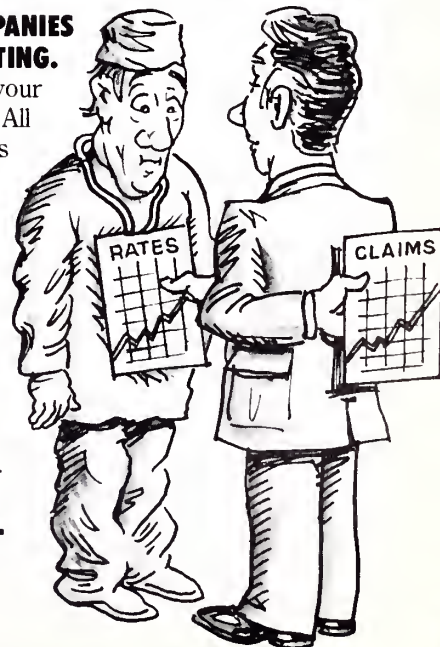
made' policy coverage expires completely if you fail to renew. To keep coverage after retirement you may have to pay an exorbitant fee set by your company and years of inflation. And the limited coverage it buys you is all you have to cover your entire career.



FRIVOLOUS CLAIMS AND HOW SOME COMPANIES MAKE A POLICY OF NOT FIGHTING.

With many policies, a claim can be settled without your consent. Or if you have a say, there's a penalty for going to court. All defense costs may not be paid. Your case may be processed by a claims adjuster not an attorney. It all adds up to expedient settlements for the company and higher rates for you.

At ICA policies are designed to protect you. Tough, professional handling of claims guards your reputation and helps keep costs down. Ours and yours. At ICA we can offer what others can not. Because we are a doctor and attorney owned company that specializes solely in professional liability insurance. Our background and dedication to this one field have allowed us to both know its needs and know how to meet them.



For more facts, contact: Insurance Corporation of America, ICA Center, 4295 San Felipe, Box 56308, Houston, Texas 77027. 1-800-231-2651. In Texas 1-800-392-9702.

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Lines and Tigers

“CAN anybody out there play this game”? This terse sobriquet was uttered by Casey Stengel when his team was having a particularly bad day in his playing field of the Bronx. Sometimes the editors of this journal have the same feeling.

We read and reread the lines submitted to us by authors for our approval for publication. Over the years we have made the subtle move from benign acceptance of marginal articles to one of tigers of rejection if current standards are not met.

We do not take delight in refusing articles that we feel lack merit. In fact we frequently bend over backwards to accept a paper that we feel is good, but simply poorly organized or badly written. We would turn that paper over to our managing editor to be revised and “cleaned-up” to a more concise form. But no more! Now we send them back to their author to be rewritten.

The fault we find with articles that we reject is not one of subject matter. It is not that they lack general interest. It is simply one of poor syntax. Sentence structure is bad or unwieldy. Punctuation may be faulty. Grammar has been marginal. The spelling for the most part has been uniformly good.

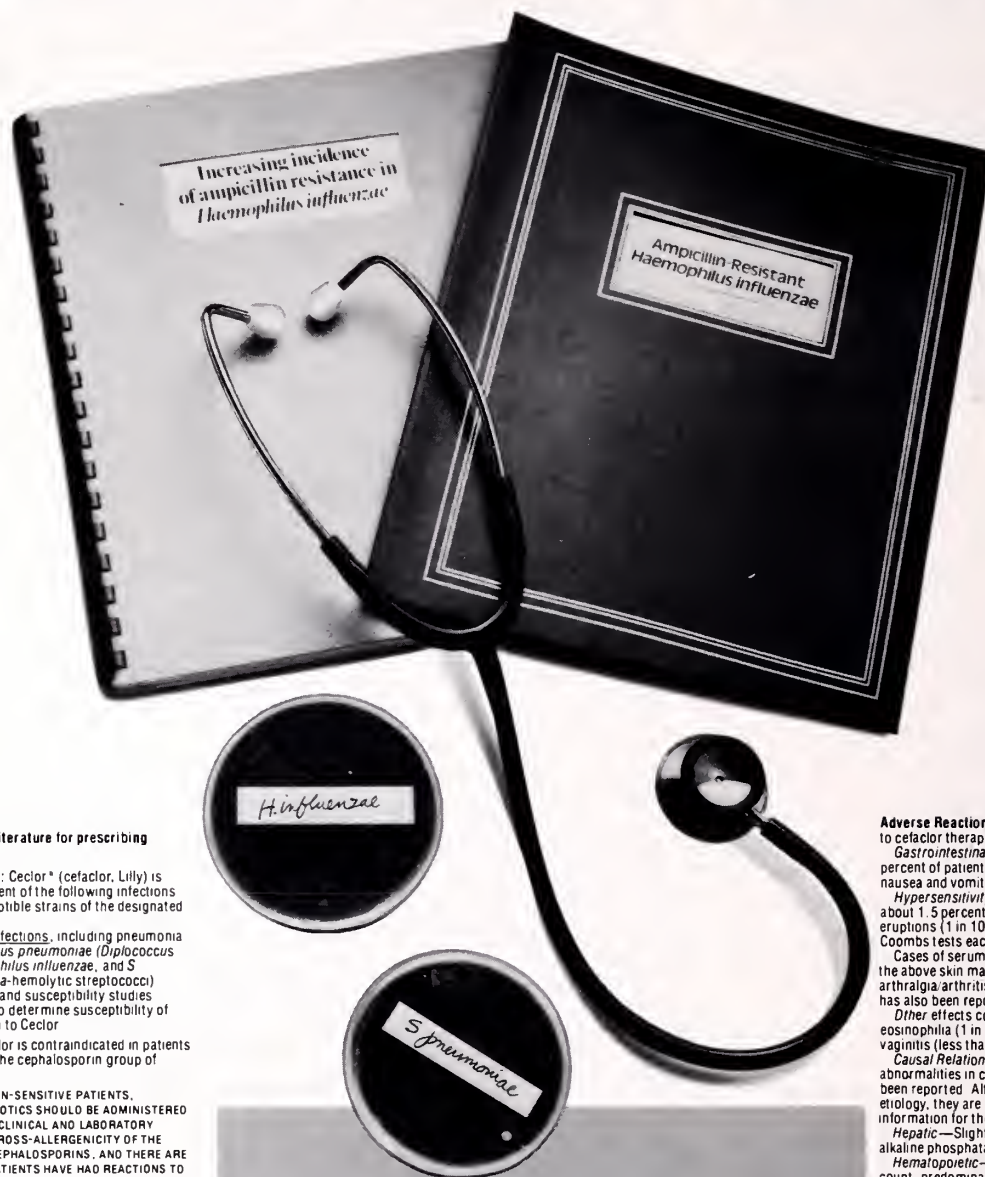
One morning while we were rehashing our problem of trying to define our criterion of what articles to publish, I made a dumb statement. I simply said (or said simply), “If doctors can’t write well, who can”? With that comment, six pairs of eyes, with their raised brows, turned incredulously in my direction as though I had pronounced the earth truly was flat. My conferees were quick to inform me that the length of education and formal training doctors must endure does not automatically instill them with literary genius. Alas, my critics were right.

One thing does impress me, however. I am impressed by the number of papers we receive written by foreign born physicians who for them English (or maybe better “American”) is the second language. Perhaps even I can handle “la plume de ma tante,” in parlor conversation. I seriously doubt if I could write in a clear and informative manner in a foreign language on any subject as complex as medicine. I applaud my colleagues who are foreign graduates and who submit material for publication.

Please send us your literary efforts. We may be tigers, but we hardly ever bite.

MF

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefaclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefaclor.

Contraindication: Cefaclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS. CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefaclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefaclor.⁷

Cefaclor®

cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below: **Gastrointestinal** symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

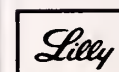
*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefaclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc. Carolina, Puerto Rico 00630

10061

In G.I. therapy



Adjunctive **Librax**[®]

Each capsule contains
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and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax[®]

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librax[®] (chlordiazepoxide HCl/Roche) to known addic-

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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AUXILIARY

It does not seem like one year has passed but it is Convention time again and we are in the midst of preparation for the 59th Annual AKMA Convention to be held in Danville, Kentucky. We will focus on McDowell House and hopefully revive or renew or acquaint some people with this medical shrine to Doctor Ephraim McDowell and Mary Todd Crawford. Won't you plan to be with us at this time? A full schedule has been planned. Danville is centrally located so, if necessary, you can drive to the meeting in a relatively short time. Please read the schedule and then consult your "Blue Grass News" for the details. Hope to see you there!

AUXILIARY TO THE KENTUCKY MEDICAL ASSOCIATION

59th Annual Convention—1981 McDowell House Danville, Kentucky Prescriptions for Healthier Living

MONDAY, APRIL 20 (EST)

1:00 p.m.- 3:00 p.m.	Budget Meeting McDowell House	5:45 - 6:45	Reception Honoring President Elect Mrs. John Noonan, and the 1981 1982 AKMA Officers, McCracken County Hosting, McDowell House
3:00 p.m.- 5:00 p.m.	Long Range Program Development McDowell House	7:00 p.m.	Danville Country Club Lexington Road
6:30 p.m.	"Early Bird Dinner @ McDowell House		Dinner Honoring Past AKMA Presidents and 1980-1981 County Presidents Installation of 1981-1982 Officers Program

TUESDAY, APRIL 21

6:30 a.m.	"BRISK WALK" (Bring your walking shoes!)
9:00 a.m. - 4:00 p.m.	Registration, set up exhibits
10:00 a.m. - 11:15 a.m.	Pre-Convention Board Meeting Catholic Center*
11:45 - 1:30	Luncheon and AMA-ERF Auction McDowell House
1:45 - 4:45	AKMA House of Delegates Session Catholic Center*

WEDNESDAY, APRIL 22

8:00 a.m.	Breakfast, Small Dining Room Holiday Inn
9:00 - 11:00 a.m.	Post Convention Board Meeting 1981-1982 Board, Small Dining Room
12:00 noon	Check-out time

Plan to stop at Beaumont Inn on the way in or out of town for lunch.

Fred C. Rainey, M.D. Secretary of AMPAC

Collective effort is considered a sound strategy for acquiring some measure of political success. If a collective effort is to be successful, the individuals involved must be willing to devote their time and energy.

Spare time is usually a luxury for physicians. If anyone were to be excused from political participation it would seem that doctors qualify. Fred C. Rainey, M.D., doesn't use this excuse. He has

become a part of many collective efforts to insure the medical profession a voice in legislative matters affecting them.

Doctor Rainey is a past President of KMA. He is a member of the AMA National Legislative Council and has been a KMA Delegate to the AMA since 1974. He was recently elected Secretary of American Medical Political Action Committee (AMPAC). "One of the reasons we have so many problems in Frankfort and Washington, D.C. is lack of individual participation from doctors. There are other groups much smaller than we are in number, yet they do much more in the area of candidate support and political contributions than we do. It's discouraging that we have difficulty getting more than a third of the physicians that belong to KMA and AMA to join AMPAC and their state PAC's. We're talking about a small amount of money that most would give to the local band boosters and not think a thing about it. I think many don't really appreciate how important it is to participate," explains Doctor Rainey.

As a family practitioner in Elizabethtown, Doctor Rainey shares a clinic with two other family physicians, allowing him some opportunity to pursue his outside activities. Each physician takes the same amount of vacation time so Doctor Rainey is not out of the office more than his partners. "It's just a question of how you want to



“One of the reasons we have so many problems in Frankfort and Washington, D.C. is lack of individual participation from doctors.”



spend your time. I enjoy the work of organized medicine, but I take some vacation time and a lot of weekends,” says Doctor Rainey. In addition to medical work, Doctor Rainey plays an active civic role and was elected, in January, as Chairman of the School Board of the Elizabethtown Independent School District.

Being a member of the AMPAC Board and the Legislative Council sometimes leaves Doctor Rainey feeling as if, “I’m wearing two hats.” He explains the differences. “AMPAC makes an effort to support candidates, together with local physician support, who have a good chance of winning. We like to support someone who is going to share our philosophical views although it is not absolutely necessary that those views totally parallel ours. We consider their over-all voting record because it is possible to have someone, particularly on a key committee who has been very supportive, but who may not agree on one main issue. We don’t feel that one vote is justification to oppose him. Once candidates are elected our job as an AMPAC Board is finished. Then it becomes the responsibility of the Legislative Council and the AMA legislative staff in Washington to represent medical views to the members in Congress on various pieces of legislation.”

One of the issues that the AMA has had to contend with recently is the Professional Standards Review Organization Law (PSRO). Last year the AMA House of Delegates voted to work for repeal of the PSRO Law. The medical profession has supported peer review for a long time. The PSRO Law was established in 1972 as a means of quality control of medical care and a way to insure the appropriateness of medical care delivered. Doctor Rainey explains, “What PSRO has turned into is an effort to control costs and it has not been cost effective. We haven’t had any problems locally though. KMA had a peer review mechanism long before the PSRO Law, and it didn’t cost the public anything. Physicians donated their time and I think their efforts have been effective and certainly less costly than a massive federal program.”

Problems with bureaucratic interference into medical issues are constantly plaguing organized medicine. Some physicians feel that the pressure may lessen with the advent of the Reagan administration, but Doctor Rainey is skeptical. “I’m not sure that I share the euphoria that some feel about how well we’re going to do under the Reagan administration. I think we may find some difficult times in Congress that many physicians don’t expect. In the past administration, if a piece

of legislation were proposed that we didn't like, we had a lot of conservative Democrat and Republican friends in Congress on whom to call. Now, if the Reagan administration should happen to propose legislation that we don't like, who are we going to call on? The President is going to count on his supporters in Congress to back his programs and these are some of the same people that we've called on in the past to defeat some of the things he's proposing. We may have a greater difficulty in this Congress finding friendly votes than we have in the past. The uneasiness comes from not knowing for sure what type of legislation the administration will draft. I don't see anyone at the AMA level relaxing a bit because of the elections."

Doctor Rainey's skepticism toward government and politics quickly fades, however, when he talks about President Reagan's inauguration, which he and his wife attended. "The whole thing was exciting. It was a very moving experience. I have to admit I got a pounding heart and watery eyes during the course of events. One of the most moving experiences that occurred was during the swearing in ceremonies. Thousands and thousands of people on the Capitol grounds were asked to hold hands and sing "America." That just did something to me. At this point we didn't

know if the hostages had been freed. This experience made me even prouder to be an American. I guess it made me appreciate our freedoms a lot more," says Doctor Rainey.

Doctor Rainey is concerned about how subtly yet easily freedom can be eroded. In a calm manner he offers a warning. "There seems to be an unusual philosophical change occurring. In the past, the attitude in Washington was one of regulation and control. Now, the attitude seems to be that this approach will not work for medicine, but that a pro-competitive atmosphere would be better. There are difficulties though even with legislation that falls into the competitive category. Competition is good and organized medicine would never oppose legitimate, honest competition. But an example is federal support of Health Maintenance Organization (HMO's) "Competition," and allowing the HMO's to skim off low-risk patients leaving high-risk patients to private practitioners with no federal support. That's a different story. And this has occurred in the recent past," explains Doctor Rainey.

Federal programs designed to solve medical and medically related problems may often not be as successful as those sponsored and administered by the state medical associations. An example is the Rural Kentucky Medical Scholarship Fund (RKMSF). Doctor Rainey elaborates, "I have always been impressed by the RKMSF. It has a fantastic retention rate. There are recipients in almost 85 counties and I think the Fund has a solid approach. I would rather the federal government give a certain amount of money to the KMA and let them use it in the program instead of supporting a program such as the National Health Service Corps."

The National Health Service Corps is a federally funded program designed to encourage physicians to practice in underserved areas by using scholarship programs and special bonus incentives. The retention rate is below 20% and only 50% of those ever honor their contracts.

When compared to the RKMSF, which has a 76% retention rate, it is understandable why Doctor Rainey believes financial support should be geared to the state level and existing programs. Almost 90% of all recipients of RKMSF have fulfilled their commitment and 60% are still serving in underserved areas.



Doctor Rainey is a 1955 graduate of the University of Tennessee College of Medicine. He came to Elizabethtown in 1958. Since that time the physician population has grown in Elizabethtown along with the general population. There are approximately 50 physicians in Elizabethtown representing most specialties, according to Doctor Rainey. "Even though our town is relatively small we draw patients from a large area. We see patients from all the adjacent counties and even some from Jefferson County."

When Doctor Rainey talks about his family, he beams with pride. The shelves of his office in the Woodland Medical Clinic are filled with pictures of his wife and four children. Many of these pictures were taken by his wife, Susan, whom he calls the family photographer.

One of the Rainey family's favorite pastimes is waterskiing and relaxing in a houseboat on Lake Cumberland. "We tie up in a cove, listen to the crickets at night and look at the stars. It's just a peaceful atmosphere. I get more rest when I'm there than when I do anything else," says Doctor Rainey.

Doctor Rainey is typically proud of his four children. The oldest, Pam, is a sophomore at Elizabethtown Community College, studying commercial art. Her work is displayed around the office. Suzanne, the younger daughter, is a junior in high school, and Jeremy, four years old and considered to be a natural comedian, attends a Montessori school. The Rainey's youngest, Michael, "stays busy trying to keep from falling off of the boat when we go to the lake," says Doctor Rainey.



The future of organized medicine is dependent upon the actions of physicians today. Obviously, Doctor Rainey believes that through the KMA and the AMA physicians can be assured of adequate representation. "I wish that all medical specialty groups would realize how much the KMA and AMA are doing. Even though there are a variety of specialties and interests in the profession there are common interests among all groups. It just doesn't make sense for one group to work for the preservation of private practice when all are interested in this matter. I don't think we can survive as a profession any other way."

Text by Donna M. Young
Photographs by Joseph A. Witherington, Jr.

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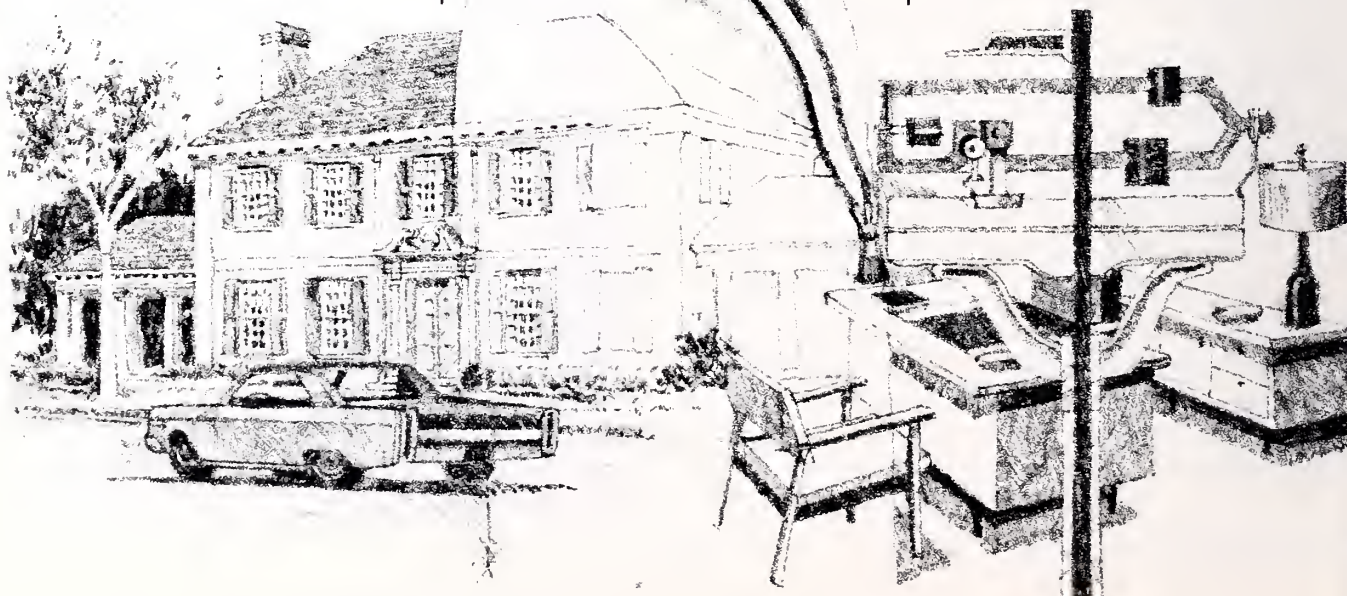
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The Regulation of Medical Care: Is The Price Too High?

John C. Goodman, Cato Institute, 1980, 135 pages

To be ecumenical this brief "study" in paperback format will be reviewed. Under the auspices of "studies in domestic issues and education" the publisher's attempt to legitimize one person's opinions, supported by either phantom data or references to similarly biased material. What is left for the few who miraculously reach the epigraph is another indictment of organized medicine. Using the popular ploy of eulogizing individual practitioners as being still worthy of praise, the author covers his trail of anathema against the whole of medicine, particularly its central representatives.

The arguments against organized medicine are succinctly raised. This review is meant to call attention to such a compilation of rhetoric, in order that those who would offer debate and contrasting ideas may have their opponent well sighted and measured.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied, and 4) the results obtained.

The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

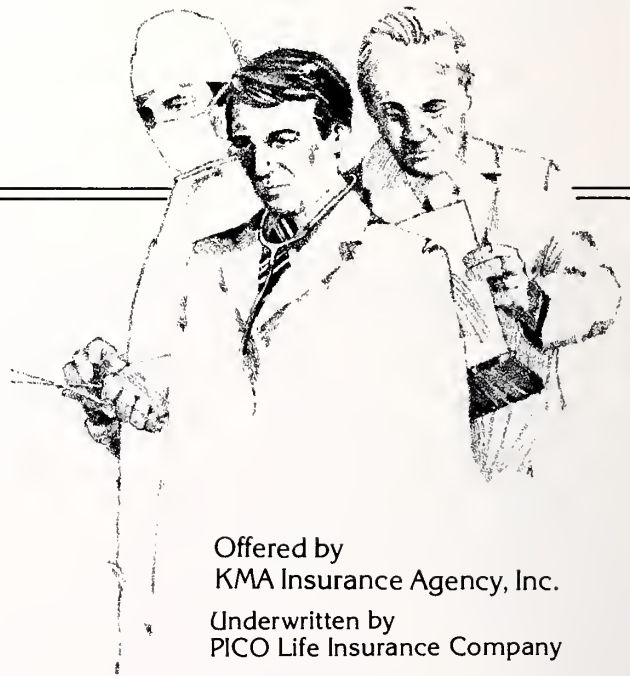
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AT THE AMERICAN MEDICAL ASSOCIATION
WE'RE INVOLVED IN MEETING
THE IMPORTANT CHALLENGES AND
RESPONSIBILITIES OF THE 80's.
This is the second in a series of reports on
major issues facing the medical profession. The purpose is to
inform physicians on what the AMA is doing, on behalf of
the profession and the public, to influence decisions that will
affect health care in the next decade and beyond.

COPING WITH FEDERAL REGULATION

Federal regulation is the leading growth industry today. It threatens many forms of private enterprise—including your ability to practice good medicine.

Almost every year the total of regulative proposals and decrees has increased. This is reflected in the *Federal Register*, a mere 9,500 pages back in 1950, 61,000 pages in 1978 and 77,000 last year. Projected total this year: 84,000—and health care regulations constitute a major portion of this total.

One reason is that the Federal Government's share of the health care expense nationwide is approaching 25%.

Another reason comes from the late author Michael J. Halberstam, M.D.: "There's a mindset in the regulatory agencies that suggests physicians are incapable of determining what's best for the patient."

A third (and very current) reason is that regulation is seen as a substitute for various health legislation that Congress spurned.

Here's a partial list of disturbing new rules and proposals from different agencies, mainly the Health Care Financing Administration:

- A directive aimed at cutting off federal funds for hospital construction and renovation in "overbedded" areas. This could lead to nationalizing all health planning.
- A possible rule to limit Medicare payments for certain high-technology items, starting with the CT scanner.



- The idea of barring Medicare payment altogether for various new, emerging, or expensive procedures.
- A proposal for uniform Annual Hospital Reports as a tool for setting Medicare reimbursement rates, regardless of local and institutional circumstances.
- A proposal for prior review of hospital admissions and elective surgery, etc., under the Medicare program.
- A regulation allowing access to employee medical records.
- A "uniform implementation" rule for Medicare reimbursement of hospital-based physicians.
- A proposal whereby various medical devices would be made available only to certain medical specialties and facilities.
- A proposal for stringent personnel standards for hospital clinical labs.

The AMA is your best defense against the regulatory invasion of your professionalism and practice. An outstanding example: The Food and Drug Administration had proposed patient package inserts (PPIs) for all prescription drugs. Through conferences and written arguments, the AMA narrowed the scope to 10 drugs on a test basis.

We've effectively coped with regulation in a variety of ways, including appeals to the courts. To reform the whole regulatory process, we've offered Congress draft legislation aimed at a larger public voice in the process and greater accountability on the part of the regulators.

To maximize our effectiveness, we need YOUR MEMBERSHIP. The larger our membership, now more than 229,000, the bigger our clout. We need clout in the Congress that sends so much "blank check" legislation to the regulatory agencies. We need Congressional clout in getting regulatory reform. We need clout in dealing with the regulators.

We need YOU . . . if we're to give you all the help that you need.

**For details on how to join, contact your state or county medical society or the AMA Office of Membership Development
American Medical Association, 535 N. Dearborn, Chicago, IL
60610, (312) 751-6410.**

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Lopurin™, Ru-Tuss® and Ru-Vert®. This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-CI™



For the Majority of
Steroid-Responsive Dermatoses*
Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications.
See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylentetrazol.	30 mg
Niacin.	50 mg
Vitamin B-1.	10 mg
Vitamin B-2.	5 mg
Vitamin B-6.	1 mg
Vitamin B-12.	3 mcg
Choline.	100 mg
Inositol.	50 mg
Manganese (as Manganese Sulfate).	1 mg
Magnesium (as Magnesium Sulfate).	2 mg
Zinc (as Zinc Sulfate).	1 mg
Iron (as Ferric Pyrophosphate, Soluble).	22 mc
Alcohol.	18%

See prescribing information on last page of this advertisement.



For Potassium Supplementation Improved Compliance...

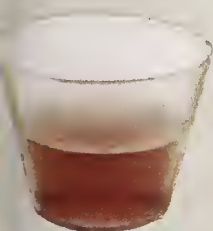
TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement
Designed for prophylactic and therapeutic use
with diuretics and adrenocorticoids.
Pleasant taste and convenient dosage aid
patient compliance.

The organic salt of potassium can be given as a
liquid without producing significant gastric
symptoms and without an untoward effect on
the mucosa of the small intestine.¹

Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.



In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with
chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.¹

See prescribing information on last page of this advertisement.



F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urtica; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani); folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, milaria. Discontinue therapy if untoward reactions occur.

DOSE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

NOTE:

1 F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.

2 F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzocaine or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme 1/2 ounce (15 gm) tubes NDC 0584-0026-51

F-E-P Creme Plain 1/2 ounce (15 gm) tubes NDC 0584-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	92 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an anesthetic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz)

NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz)

NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-CI™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbitol and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiency are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CI is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 ml to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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Boots Pharmaceuticals, Inc.

Shreveport, Louisiana 71106

Pioneers in Medicine For the Family



Digest of Proceedings Board of Trustees Meeting January 15, 1981

The Board of Trustees met in special session on January 15, 1981, for the primary purpose of discussing an announcement the Secretary of the Department for Human Resources had made the previous day regarding his proposals for reducing expenditures in the Medicaid Program.

KMA's representative on the Medical Assistance Advisory Council, Robert N. McLeod, M.D., and the Chairman of the KMA Technical Advisory Committee on Physician Services, Harold L. Bushey, M.D., were in attendance to provide input into the matter. In discussion, it was observed that these activities relate to the action of the House of Delegates as stated in Substitute Resolution R (1980) and it was therefore probably most appropriate that this matter be presented to the House of Delegates for consideration. Because actual implementation of the proposed cost cuts might be subject to modification and because the House was tentatively scheduled to meet on April 16, the Board

voted to authorize the Quick Action Committee to stay abreast of the situation and when indicated call the House into a special meeting on or before April 16. It was also decided that for the time being, KMA would not react officially or otherwise to the cost cut proposals being set forth.

In other action, the Board directed the Committee on Constitution and Bylaws to draft a Bylaw provision outlining the method a county society must follow to withdraw from a multi-county medical society.

The Board went on record expressing appreciation to Robert S. Howell, M.D. for his efforts with KMA's Corporate Visitation Program and voicing its hope that the Program will continue.

The Board took action on a "Kentucky Medical Record Legal Guide," and accepted a report from Blue Cross and Blue Shield regarding rate increases in renewals for the Blue Cross, Blue Shield and Major Medical group plans for Kentucky physicians.

Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA Office: 502-459-9790. Or call one of the committee members listed below.

David L. Stewart, M.D., Louisville, (502)456-1891
Daniel W. Burke, M.D., Louisville, (502)584-2421
Keene M. Hill, M.D., Horse Cave, (502)786-2372
Thomas R. Miller, M.D., Lexington, (606)277-9755

Charles Nichols, M.D., Pikeville (606)432-0191
James F. Rozelle, M.D., Rozelle, (502)886-5163
Nat H. Sandler, M.D., Lexington, (606)278-7811
Bruce A. Snider, M.D., Crestview Hills, (606)341-5014

Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Stuart L. Brodsky, M.D., Mayfield
Ralph L. Cash, M.D., Princeton
Henry F. Chambers, M.D., Campbellsville
John E. Downing, M.D., Bowling Green
Mary P. Fox, M.D., Pikeville
Joseph T. Fuqua, M.D., Hopkinsville
Jerry Lee Gibbs, M.D., Glasgow
Rolando I. Haddad, M.D., Louisville
Frederic C. Hauck, M.D., Owensboro
Michael C. Hess, M.D., Bardstown
Suk Ki Kim, M.D., Owensboro

William T. Moore, M.D., Bowling Green
John E. Plumlee, M.D., Lexington
Rogers L. Queen, M.D., Louisville
Harold D. Rosenbaum, M.D., Lexington
Thomas M. Roy, M.D., Alexandria
John J. Ryan, M.D., Louisville
Millard R. Shaw, M.D., Henderson
James H. Stuteville, M.D., Sonora
George R. Tanner, M.D., Cynthiana
Robert C. Tate, M.D., Louisville
Mark F. Watson, M.D., Russell

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Telephone: (Area Code 502) 895-5501, Mailing Address: P.O. 20065, Louisville, Kentucky 40220

LEXINGTON OFFICE: Charles E. Faree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524

Medicare Part B Introduces A New Claim Form

The new Health Insurance Claim Form, Form HCFA-1500, will be available for use in filing Kentucky Medicare Part B claims beginning July 1, 1981.

Using the AMA claim form as a basic model, several health insurance programs have combined their request for payment forms. The result of this is the HCFA-1500 which has received the approval of the AMA Council on Medical Services. The HCFA-1500 replaces the HCFA-1490 and the HCFA-1490W, and will be used by Medicare and CHAMPUS. The form will also be used for patients who have both Medicare and Medicaid.

Professional Relations representatives from Metropolitan Medicare are offering workshops throughout the Commonwealth to introduce the HCFA-1500. To register for a workshop contact: Medicare, Metropolitan Life, 1218 Harrodsburg Road, Lexington, KY 40504.

Date/Time	Place	Address
April 7—2:00 E.S.T.	Campbell House	1375 Harrodsburg Rd., Entr. #3 Mason-Headley Rm. (South Side) - Lexington, Kentucky
April 8—9:30 E.S.T.	Holiday Inn	U. S. 60 - Frankfort, Kentucky
April 9—9:30 E.S.T.	Holiday Inn-Midtown	Brook at Liberty Street - Louisville, Kentucky
April 14—9:00 C.S.T.	Executive Inn	1 Executive Blvd. (Ky. Room) - Owensboro, Kentucky
April 15—2:00 C.S.T.	Holiday Inn	2916 Ft. Campbell Blvd., US 41A - Hopkinsville, Kentucky
April 16—9:30 C.S.T.	Holiday Inn (Paducah Area)	U. S. 62 - Ky. Dam Exit - Gilbertsville, Kentucky
April 20—9:30 E.S.T.	Campbell House	1375 Harrodsburg Rd., Entr. #3 Mason-Headley Rm. (South Side) - Lexington, Kentucky
April 21—9:30 C.S.T.	Red Carpet Inn	I-65/Scottsville Road - Bowling Green, Kentucky
April 22—9:00 E.S.T.	Holiday Inn-South	Jct. I-65 and U. S. 31W - Elizabethtown, Kentucky
April 27—1:30 E.S.T.	Holiday Inn	U. S. 27 - Somerset, Kentucky
April 28—9:30 E.S.T.	Holiday Inn	Jct. I-75 & U. S. 25W - Corbin, Kentucky
April 29—2:00 E.S.T.	Pine Mountain State Park	U. S. 25E - Pineville, Kentucky
May 5—9:30 E.S.T.	Draw Bridge Inn (Covington Area)	I-75 & Buttermilk Pk. - Ft. Mitchell, Kentucky
May 6—1:00 E.S.T.	Sheraton Inn	I-64 at Hurstbourne Lane - Louisville, Kentucky
May 11—1:30 E.S.T.	Ramada Inn (Ashland Area)	U. S. 52 at Delta Lane - South Point, Ohio
May 12—2:00 E.S.T.	Jenny Wiley State Park	U. S. 26 and 460 - Prestonsburg, Kentucky
May 13—9:30 E.S.T.	Appalachian Regional Hospital	Conference Room, Combs Road - Hazard, Kentucky

WRITERS' WORKSHOP

May 13, 1981

Community Health Building

101 West Chestnut Street

1:30-5:30 p.m.

1:30 p.m.

INTRODUCTION TO WORKSHOP

John S. Spratt, M.D., Editor, *Louisville Medicine*

SESSION I

Frederick K. Cressman, Jr., M.D.,
Editorial Board, *Louisville Medicine*

CHAIRMAN

1:45 p.m.

"The Role of a Manuscript Editor"

Ms. Shirley Cook, Manuscript Editor,
Department of Surgery, U. of L.

2:00 p.m.

"Medical Literature Sources"

Mr. Leonard Eddy, Head Medical Librarian,
S. I. Kornhauser Library

2:15 p.m.

"Specialized Literature Search"

Ms. Norma Braver, Reference Librarian,
S. I. Kornhauser Library

2:30 p.m.

"Medical Illustration"

Mr. George Batik, Director of
Medical Illustration, U. of L.

2:45 p.m.

"Reporting on Medical Data in Publications"

Richard A. Greenberg, Ph.D., Professor of
Epidemiology, U. of L.

3:00 p.m.

Question and Answer Session

3:20 p.m.

COFFEE BREAK

SESSION II

James E. Redmon, Jr., M.D.,
Editorial Board, *Louisville Medicine*

CHAIRMAN

3:35 p.m.

"The Legal Implications of Medical Writing"

Mr. T. Kennedy Helm, III, Attorney
3:50 p.m.

"Grant Writing"

John W. Brown, Ph.D., Director of
Office Sponsored Programs, U. of L.

4:05 p.m.

"Writing for the Media on Medical Topics"

Ms. Dawn Mickelthwaite, *Louisville Times*,
Medical Reporter

4:20 p.m.

"Public Relations Writing on Medical Topics"

Ms. Gail Tucker, Former Public Relations Director,
Health Sciences Center, U. of L.

4:35 p.m.

"Advertising and Liaison with the Printer"

Mr. Bill Buehart, Account Executive,
Louisville Medicine

4:50 p.m.

Question and Answer Session

5:05 p.m.

WRAP-UP

RECEPTION

FOR RESERVATIONS CALL DEANN CLARK,
THE JEFFERSON COUNTY MEDICAL SOCIETY 589-2001.

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae*

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age. Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

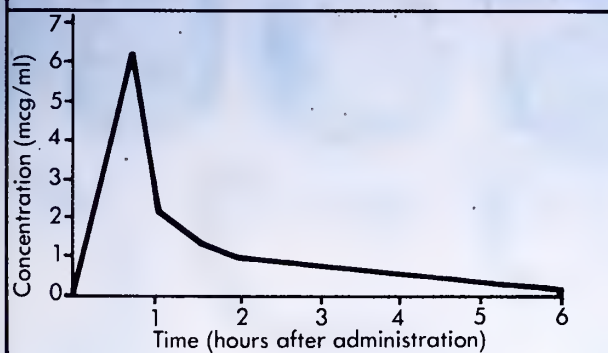
*Dosage should not result in a dose higher than that for adults.
†depending on severity

Wyeth Laboratories
Philadelphia, Pa. 19101

Half the dose
is absorbed in 9 minutes!
compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W
(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW
NAME

*Based on T_{1/2} values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories • Philadelphia, Pa 19101

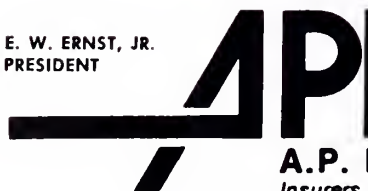


No one knows how hard you've worked
for what you have — but you!

We can help you keep it if you have an
accident or illness; because our business
is selling disability insurance for professionals.

**KENTUCKY MEDICAL ASSOCIATION
DISABILITY INSURANCE PROGRAM**

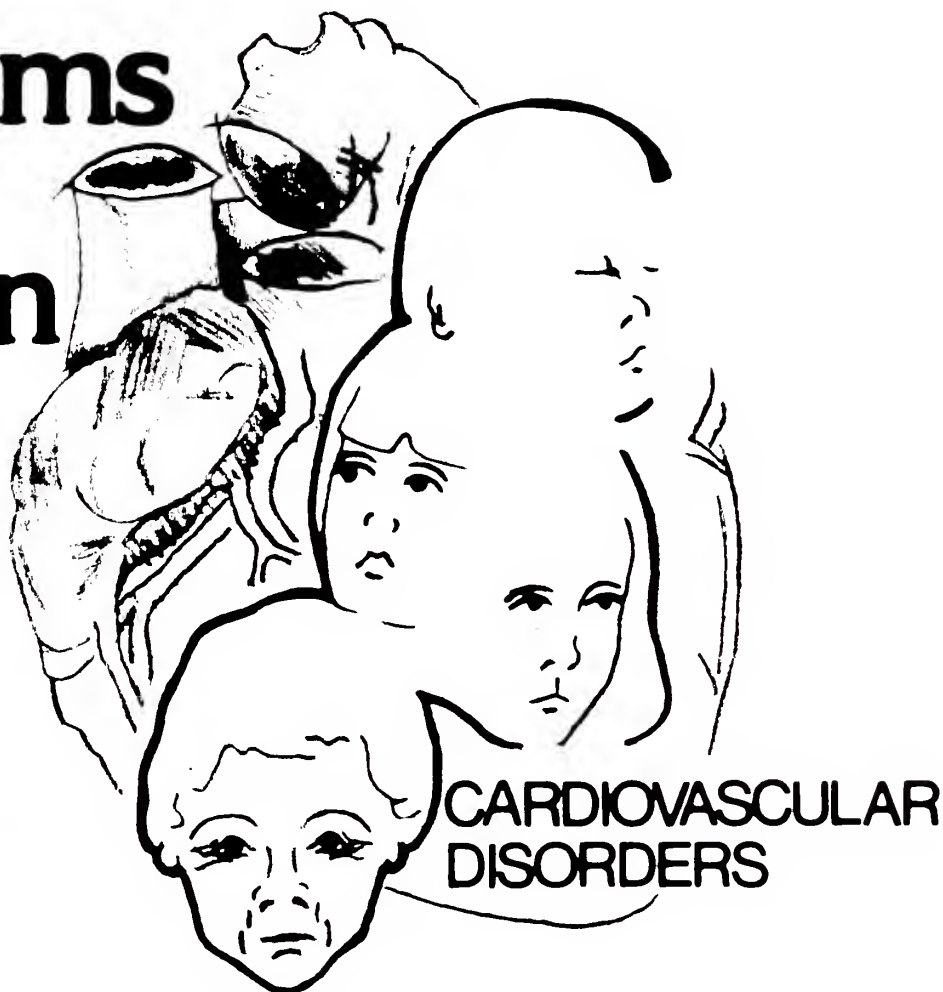
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PRESIDENT**



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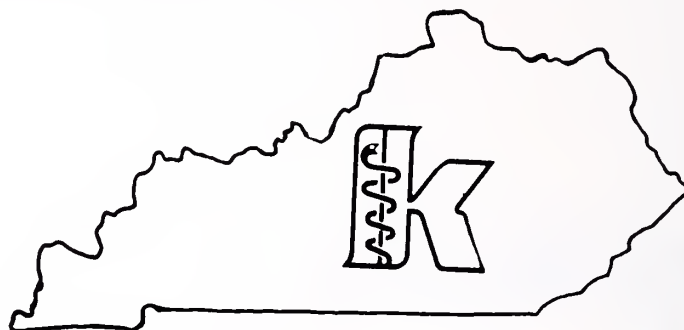
Problems in the Human Life Cycle



KMA Annual Meeting, September 22, 23, 24, 1981

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Application for Scientific Exhibits

1981 Annual Meeting

Kentucky Medical Association

Ramada Inn/Bluegrass Convention Center

Louisville, Kentucky

September 22, 23, 24

1. Title of exhibit _____
2. Name(s) of exhibitor(s) _____
Address _____
Professional title _____
3. Institution if other than exhibitor _____
4. Amount of backwall footage required _____
(The draped booth has 4' side walls. This footage should not be included in backwall footage required.)
SHELF DESIRED? _____ (Table 2' deep X width of backwall footage)
5. Will summary printed matter be available or obtainable for the interested physician? _____
6. Indicate sources of assistance provided to you in connection with this exhibit _____

7. Has this exhibit been displayed before? If so, when & where? _____

8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

Date _____

Signature of Applicant _____

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before June 1, 1981.

- KMA provides, without cost to the exhibitor, one 2 ft. Table as shelving, bracket lights and a title sign.
- Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the Joseph T. Griffin Company, 818 West Main Street, Louisville, Kentucky 40202.
- *Commercial* exhibit materials and handouts are prohibited in the Scientific Exhibit area.
- Transportation and erection costs are the responsibility of the exhibitor.
- Exhibit must be attended during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.
- Equipment which will create noise must not be used during the general sessions and, at other times, must be controlled by head or earphones or a muffling device.

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category 4 credit.

DRAMATIC NEW CLINICAL PROOF*

In the treatment of impetigo—

- **100% cure rate with Tegopen® (cloxacillin sodium)**
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. No treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular.

(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® (cloxacillin sodium)	Given penicillin V-K
<i>Staphylococcus aureus</i>	(78 patients)	39	39
Returned to clinic at one week	29†	38†	
Treatment failure at one week	0	18 (47.4%)	
<i>Staphylococcus aureus</i> and <i>Streptococcus pyogenes</i>	(9 patients)	4	5
Returned to clinic at one week	4	5	
Treatment failure at one week	0	2 (40%)	
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic <i>Streptococcus</i>	(1 patient)	0	1
TOTALS:	102 patients	52 patients	50 patients

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported

the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus*, 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes*, and 1% beta-hemolytic *Streptococcus*.†
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.

- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

†The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®

(cloxacillin sodium)

-effective therapy for staph infections of the skin and skin structures

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose

stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q. 6h.

Children: 50 mg./Kg./day in equally divided doses q. 6h. Children weighing more than 20 Kg should be given the adult dose. Administer on empty stomach for maximum absorption.

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- 10 *Journal* Editors, Louisville
- 12 Budget Committee, Louisville
- 19 KMA Executive Committee
- 30 Medical Aspects of Sports, Hyatt Regency Hotel, Lexington

APRIL

- 1 Board of Trustees, Louisville
- 1-2 Synergy in Leadership, Louisville
- 14 *Journal* Editors, Louisville
- 21-22 New Physicians' Workshops, Executive West, Louisville

MAY

- 12 *Journal* Editors, Louisville
- 21 Board of Medical Licensure, Louisville
- 27 Allied Health CEO's, KDA Building, Louisville

JUNE

- 7-11 AMA Annual Meeting, Chicago
- 9-11 Emergency Medical Care Seminar, Louisville
- 9 *Journal* Editors, Louisville

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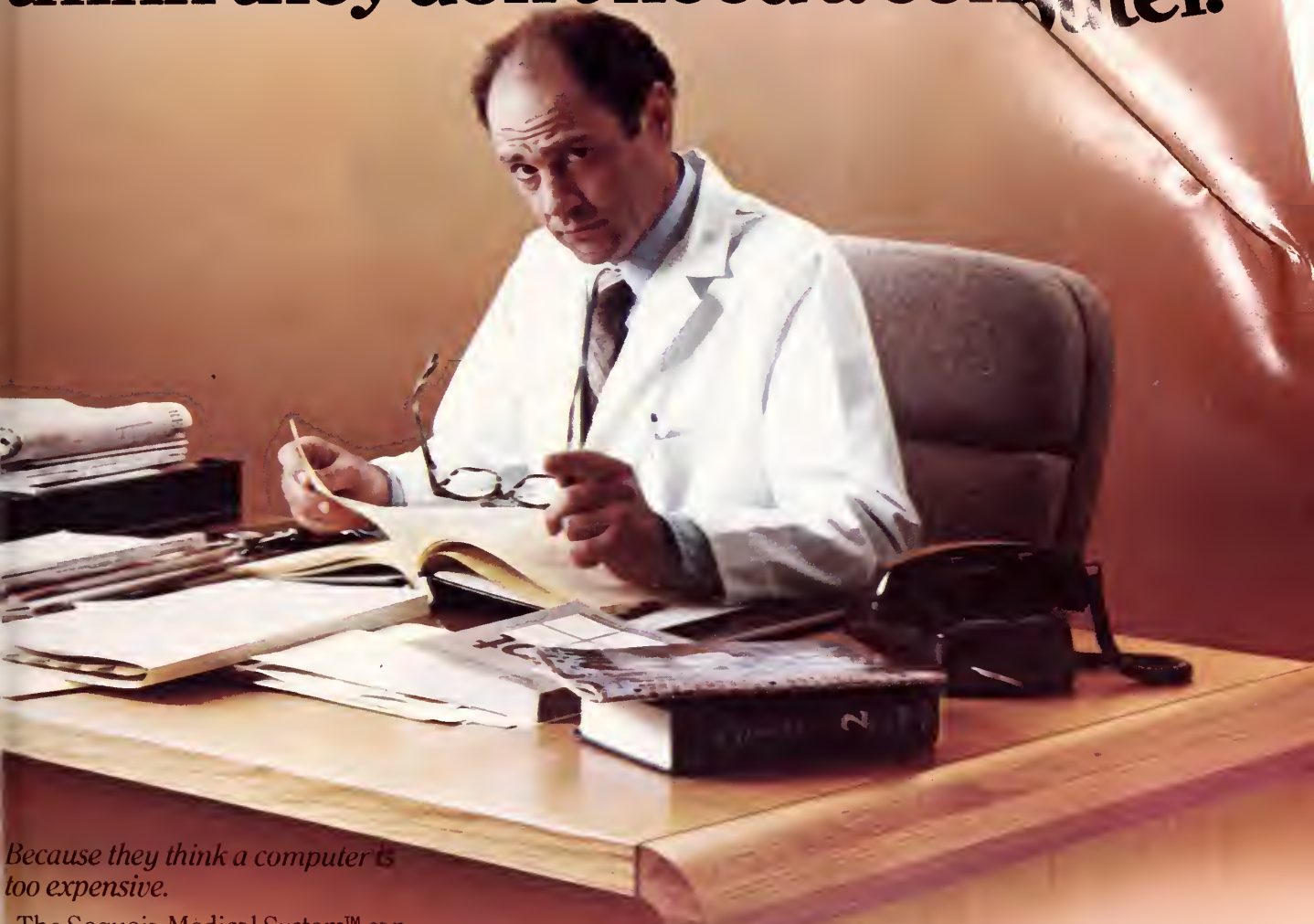
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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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May 1981
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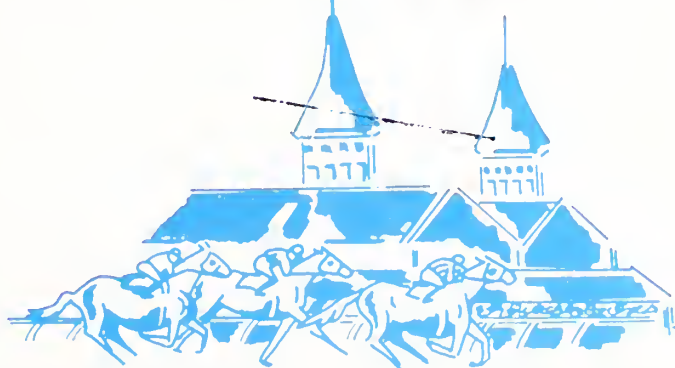
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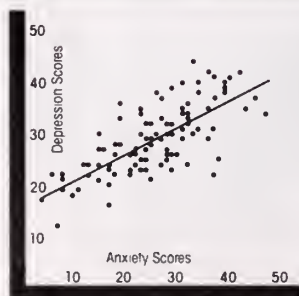
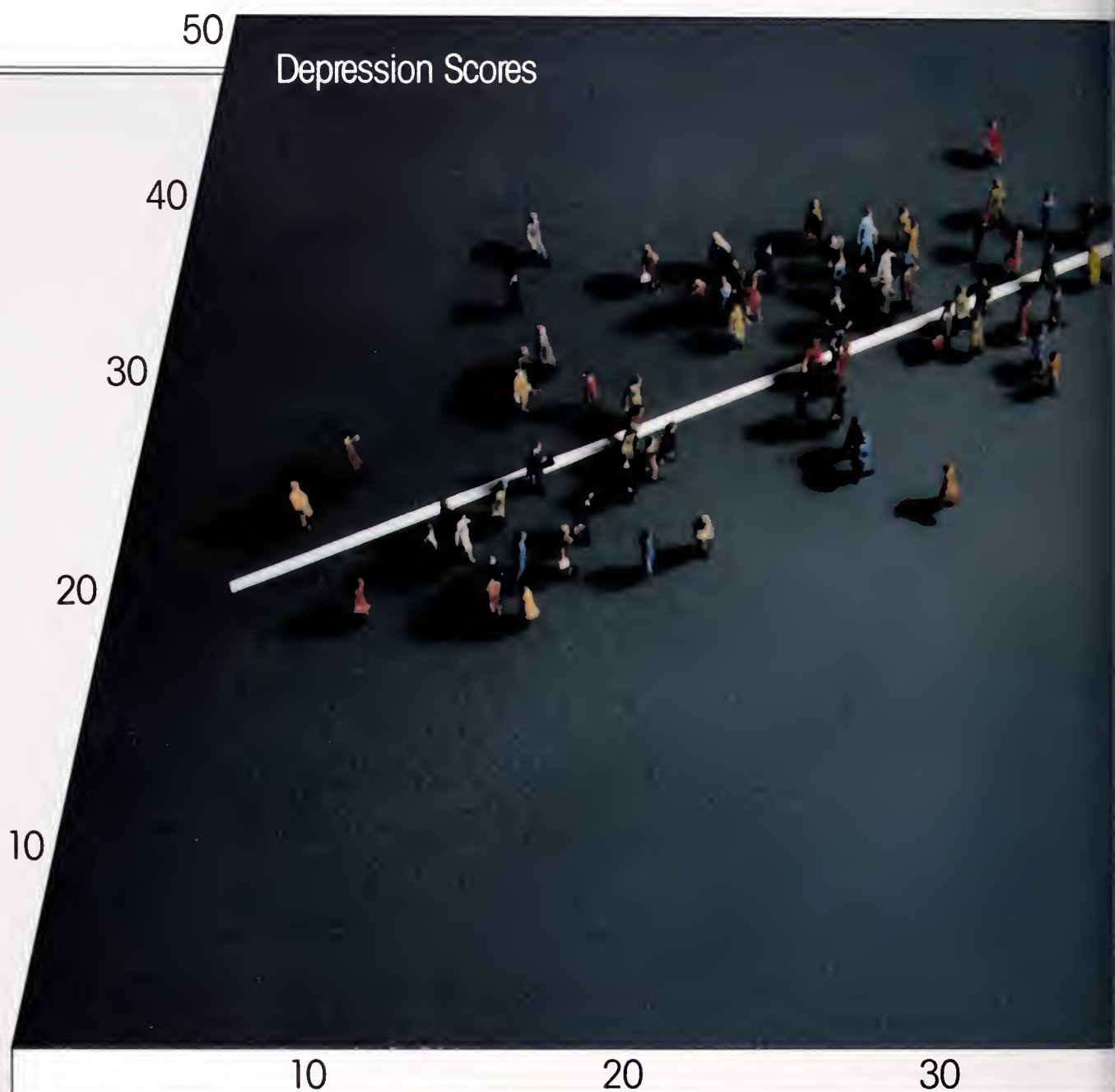
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FOR THE 7 OF 10 NONPSYCHOTIC



Clear correlation between anxiety and depression³

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

³Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics* 11:438-441, Sept-Oct 1970.

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS^{1,2}

Most depressed patients are also anxious. . .

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.^{1,2} One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.³ As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.⁴ Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.⁵ Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crafts, 1977, p. 316. 2. Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry* 35:1359-1365, 1978. 3. Claghorn J: The anxiety-depression syndrome. *Psychosomatics* 11:438-441, 1970. 4. The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry* 137:1163-1172, 1980. 5. Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology* 61:217-225, 1979.

Anxiety Scores

50

In moderate depression and anxiety

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Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquillizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those at barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias at the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12 5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

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- 6-9 62nd Annual Meeting Virginia Society of Ophthalmology and Otolaryngology, Inc., Virginia Beach, VA
- 8 Pediatric Adolescent Gynecology, Executive West, Louisville**
- 17-22 12th Family Medicine Review—Session II, Hyatt Regency, Lexington*
- 21 Allergy Immunology, Hyatt Regency, Louisville**
- 28-30 General Pediatric Review, Hyatt Regency, Lexington*

JUNE

- 3-5 Update in Ob-Gyn, Hyatt Regency, Lexington*
- 14-19 Sixth Annual Family Medicine Review, Hyatt Regency, Louisville**

JULY

- 31-2 E.N.T. Symposium for the Family Physician, The Lodge in Vail, Colorado***

*Frank R. Lemon, M. D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329

***Lisa Lee, ENT Symposium, 950 E. Harvard, #500, Denver, CO 80210 (303) 744-1961

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Information about photograph of graduating class, Hospital College of Medicine, Louisville, in 1881. Would like to purchase or have reproduction of this illustration. Please contact, etc., James P. Moss, M.D., 250 East Liberty St., Louisville, KY 40202; (502) 583-7643.



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PRESIDENT'S PAGE

IT'S a new beginning—for the first time since the Medicare Law was enacted in the late 60's, American medicine may have the chance to relieve itself of many of the Federal regulations that have been imposed on us over this period.

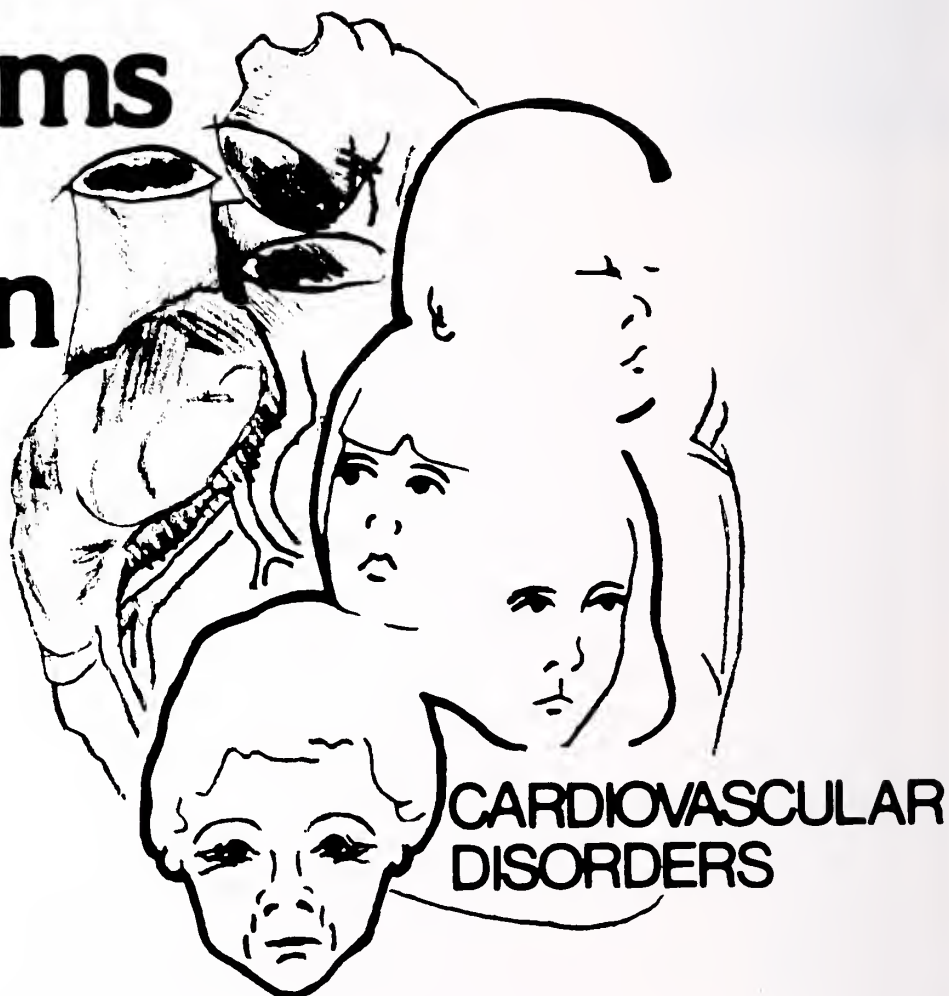
Many of you may remember "operation coffeecake" sponsored by the Auxiliary in 1968. A special record was made of a speech given by Ronald Reagan against the medicare program enactment. In his speech, Mr. Reagan stated that the program would be much more costly than the highest predictions and of course he was right. I do not believe President Reagan has changed his views in this regard and I believe he is going to do all in his power to reduce some of this cost.

Over the span of his presidency, I believe Mr. Reagan is going to encourage health care providers to come forth with a better solution to the nation's ills. I believe we will miss our last opportunity to practice medicine free of government intervention if we do not take advantage of this chance to show ourselves worthy of the challenge to provide good and adequate health care for our patients.

Organized medicine can come up with the answers and the programs. We need your assistance and membership so that all can work together to accomplish the goal. Will each of you come forth and join us in one of the greatest endeavors medicine has ever faced—I ask you to pay your dues and belong to your county medical society, KMA and the AMA—the time is now.

Dwight L. Blackburn, M.D.
Chairman, KMA Board of Trustees

Problems in the Human Life Cycle



KMA Annual Meeting, September 22, 23, 24, 1981

Visual Evoked Potentials and Multiple Sclerosis

ROBERT S. TILLET, JR., M.D.

The visual evoked potential is briefly described and methodology of testing is discussed. Several examples of visual evoked potentials are presented from patients with multiple sclerosis. The visual evoked potential is useful in diagnosing and following multiple sclerosis. Several examples are given of studies from multiple sclerosis patients.

CEREBRAL evoked potentials have been recorded for 20 years or more. In the past, recording evoked potentials was basically a research tool requiring cumbersome electronic equipment. The development of commercial computer-averagers has made the cerebral evoked potential a clinically useful tool. The visual evoked potential has led the way in evoked potential recording. The relative ease in performing the test and acquiring data, and the marked sensitivity to lesions of the optic nerves have made visual evoked potentials (VEP or VER) of particular value in evaluating patients who may have multiple sclerosis.

Pattern reversal VEP's are quite sensitive for lesions of the optic nerves or of the macula. In multiple sclerosis patients, the VEP may be the

only way to document demyelinative optic nerve lesion, as all other conventional testing, including visual acuity and fields, may be normal. The VEP can even document demyelinative lesions of the optic nerves which have never caused symptoms. The reported incidence of abnormal VEP's in M.S. patients varies. One series reported by Chippa found that in 349 patients with M.S. 81% of definite M.S., 52% of probably M.S., and 26% of possible M.S. patients had abnormal VEP's. A sub-category of 82 patients who had a history of only optic neuritis had a 96% incidence of abnormal VEP's.

There are variations in methods in performing VEP's. In our laboratory we have the patient seated one meter from a TV screen. A checkerboard black-white pattern reverses (black to white and

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Figure 1

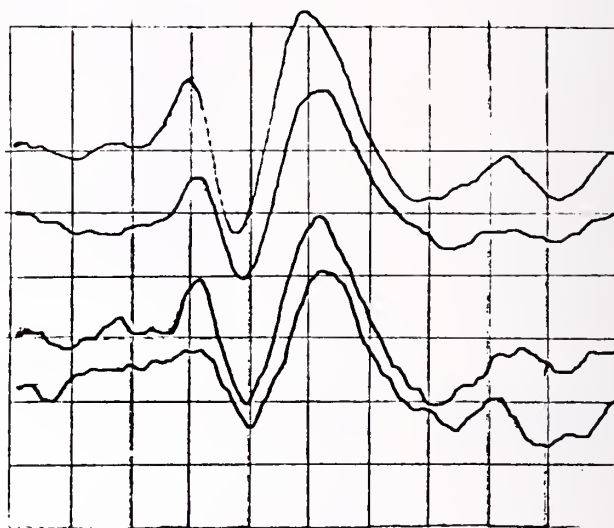
ACQUISITION PARAMETERS

Test # _____ FILTER:
Time 250 ms Low 1 High 100
Sensitivity 25 Display Mult 2
Sensitivity _____ = Display Full Scale _____
Display Mult _____

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32

Normal visual evoked potential.



white to black) almost twice a second. The patient looks at the center of the screen. Each eye is tested separately. The patient wears any glasses or contact lenses needed for best corrected visual acuity. Each reversal of the checkboard pattern generates a small signal (the VEP) which can be recorded from the occipital lobe. A series of 100 reversals are usually presented to each eye. With each reversal the computer extracts the signal (the VEP) from the noise (random EEG activity, muscle activity, movement, etc.). A well-defined one to 30 microvolt response is usually obtained (see Figure 1) with a major downgoing (positive polarity) peak at about 95 milliseconds from the stimulus. The test is repeated in each eye to verify reproducible results.

Various technical factors will influence the VEP. These include the brightness of the screen, the background light, the rate of stimulation, size of the checks, the distance of the patient from the screen, the patient's level of cooperation and others. Each lab must establish its own procedure and its own normal data.

Excluding obvious ophthalmologic disease of the retina, cornea, lens, or anterior chamber, or poor uncorrected vision, an abnormal VEP usually indicates a lesion(s) of the optic nerve. The etiology of the lesion is not specific. Tumors, glaucoma, compression of the optic nerve, optic nerve ischemia may all cause an abnormal VEP as

well as the demyelinative lesion seen in M.S. Fortunately, because of age and the general medical health of the typical possible M.S. patient, these other etiologic possibilities are rather easily excluded.

As one might expect in a disease such as multiple sclerosis, there are a variety of ways the VEP can be affected in M.S. Certain patterns do emerge. The following figures illustrate these. Each sweep represents 250 milliseconds of time, and each light vertical subdivision is 25 milliseconds.

In Figure 2 we see a typical example of acute optic neuritis. Optic neuritis often is a manifestation of M.S., but there is a group of patients who have had optic neuritis but never develop clinical M.S. Note the irregular, slurred and moderately prolonged response from the right eye. The left eye is normal. In our lab 106.3 ms is the 99th percentile of the normal population. Any latency longer than this is considered abnormal.

The response in Figure 3 is more subtle. Both latencies are normal but the latency difference between eyes of eight milliseconds is abnormal (6 ms is the 99th percentile for our lab). This patient had numerous subjective complaints and abnormal spinal fluid, but a normal examination. She had no history of optic neuritis, only some non-specific complaints of blurred vision at times in her right eye.

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Figure 2

ACQUISITION PARAMETERS

Test #EO-052-80 FILTER:

Time 250 ms Low 1 High 100

Sensitivity 25 Display Mult 4 & 8

Sensitivity _____ = Display Full Scale _____
Display Mult

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32

ACQUISITION PARAMETERS

Test #EP-052-80 FILTER:

Time 250 ms Low 1 High 100

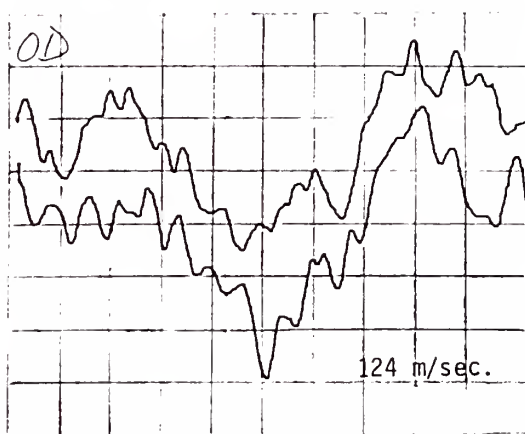
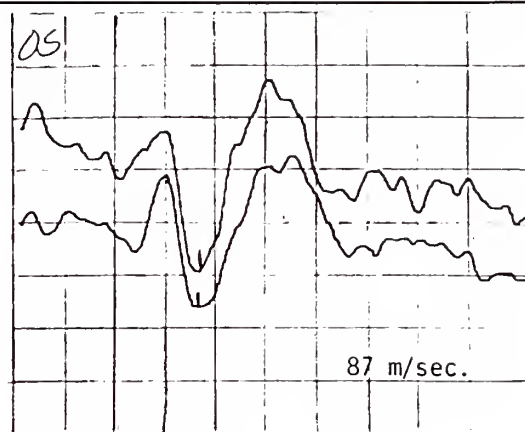
Sensitivity 25 Display Mult 4 & 8

Sensitivity _____ = Display Full Scale _____
Display Mult

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32

Visual evoked potential in acute optic neuritis of the right eye.



The patient represented by Figure 4 had a predominantly spinal form of M.S., yet her VEP's show moderate bilaterally prolonged latencies. Only after the VEP was performed did she recall some past problems with blurred vision. She had normal visual fields and acuity at the time of the exam.

The patient in Figure 5 had two documented attacks of optic neuritis in his right eye over a 10-year period. Note the markedly prolonged latency from the right eye, and the rather irregular, slurred response. Note also the subclinical involvement of the left eye, with mildly prolonged latencies. It is of interest that in M.S. patients with markedly abnormal responses of one eye, usually the other eye shows evidence of optic nerve involvement as well, even though the patient has not had any symptoms involving that eye.

Figure 6 represents the effect of chronic M.S. This patient was 69-years-old, and had great diffi-

culty with her gait, but had previously been unaware of her diagnosis. Her first symptoms were at age 25. The latencies of the responses from both eyes are markedly prolonged and rather irregular. One would suspect that the patients represented by Figures 4 and 5 will eventually have responses like those of Figure 6 if their disease remains active.

The VEP has several important uses in M.S. patients. First, it assists in their diagnosis. In addition, it helps give definition to the degree of involvement of the nervous system by demyelinating plaques. One would not have suspected from examining the patient from Figure 4 that she would have bilateral optic nerve involvement, or that the **left eye** of the patient from Figure 5 would be affected by plaques. Finally the VEP gives the physician some objective measure of whether the disease is advancing. This will be particularly important in evaluating patients under-

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Figure 3

ACQUISITION PARAMETERS

Test #EP-016-80 FILTER:

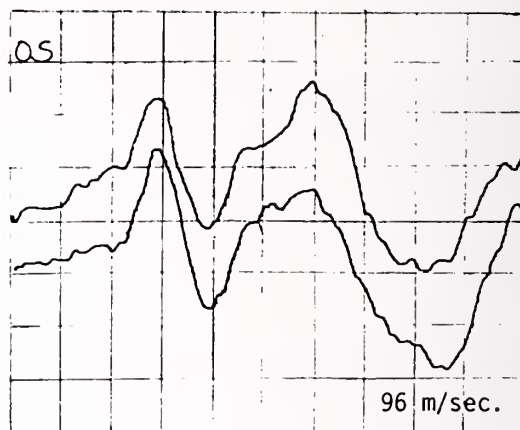
Time 250 ms Low 1 High 100

Sensitivity 25 Display Mult 4

$\frac{\text{Sensitivity}}{\text{Display Mult}} = \text{Display Full Scale}$ _____

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32



ACQUISITION PARAMETERS

Test #EP-016-80 FILTER:

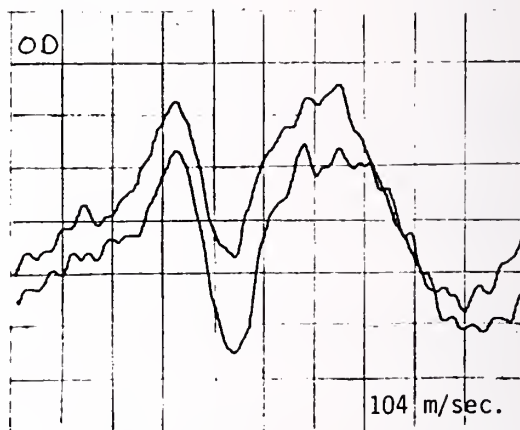
Time 250 ms Low 1 High 100

Sensitivity 25 Display Mult 4

$\frac{\text{Sensitivity}}{\text{Display Mult}} = \text{Display Full Scale}$ _____

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32



Visual evoked potential with abnormal inter-eye latencies. The patient had no history of optic neuritis.

Figure 4

ACQUISITION PARAMETERS

Test #005-80 FILTER:

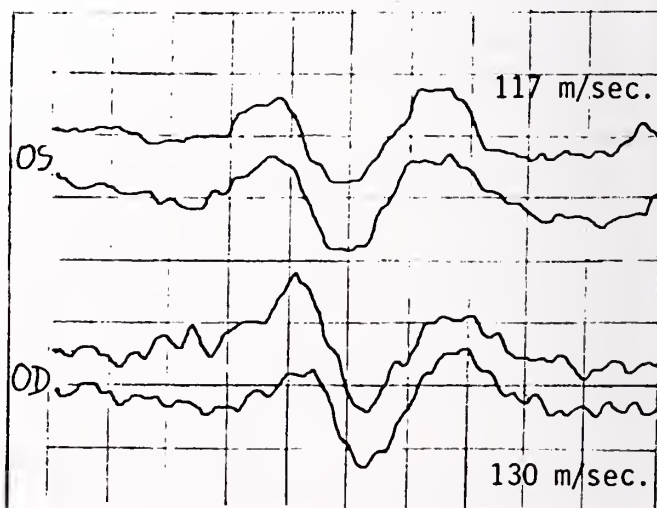
Time 250 ms Low 1 High 100

Sensitivity 50 Display Mult 2

$\frac{\text{Sensitivity}}{\text{Display Mult}} = \text{Display Full Scale}$ _____

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32



Moderate bilaterally prolonged visual evoked potential latencies. The patient had normal vision and predominantly spinal symptoms.

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Figure 5

ACQUISITION PARAMETERS

Test #EP-105-80 FILTER:

Time 250 ms Low 1 High 100

Sensitivity 50 Display Mult 8

$\frac{\text{Sensitivity}}{\text{Display Mult}} = \text{Display Full Scale}$ _____

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32

ACQUISITION PARAMETERS

Test #EP-105-80 FILTER:

Time 250 ms Low 1 High 100

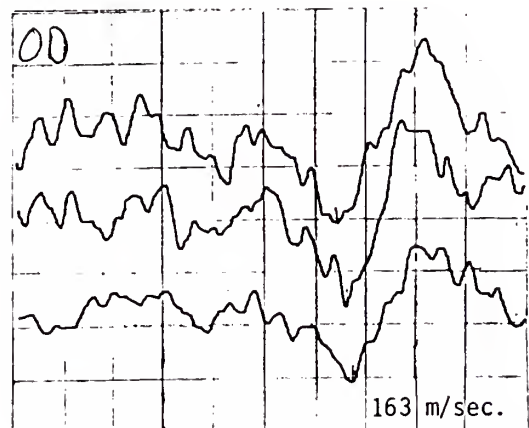
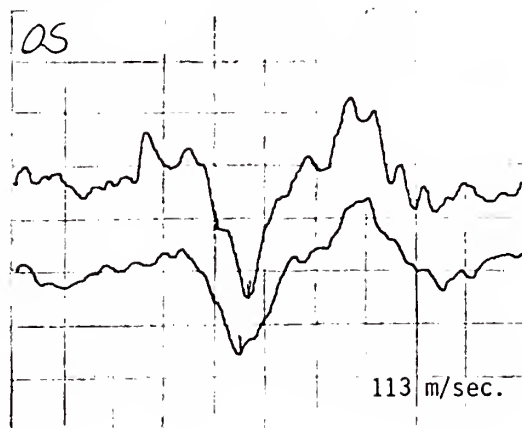
Sensitivity 50 Display Mult 8

$\frac{\text{Sensitivity}}{\text{Display Mult}} = \text{Display Full Scale}$ _____

STIMULUS PARAMETERS

Rate 1.88 Duration 32 x 32

Marked prolonged visual evoked potential latency of the right eye, and mild prolonged latency of the left eye. This M.S. patient had had two attacks of right eye optic neuritis.



going treatment to arrest M.S. The patients in Figures 3 and 4 both have normal vision, but the responses from Figure 4 were much more abnormal than those in Figure 3. In this case the VEP would be a more sensitive indicator of optic nerve pathology than the clinical exam. If the patient in Figure 3 were on treatment and developed responses like those of Figure 4, we would know the therapy was not totally successful even if the patient remained asymptomatic.

In summary, visual evoked potentials are a sensitive way of evaluating optic nerve pathology. The test is easily performed and is an excellent method of evaluating optic nerve function in patients who may have multiple sclerosis.

References 1. Asselman P et al: Visual Evoked Responses in the Diagnosis and Management of Patients Suspected of Multiple Sclerosis. *Brain* 98:261-252, 1975. 2. Chiappa KH: Evoked Responses Part I: Pattern Shift Visual. *Weekly Update: Neurology and Neurosurgery* V. 2, No. 8, April 1980. 3. Halliday AM et al: Visual Evoked Responses in Diagnosis of Multiple Sclerosis. *British Medical Journal* 4:661-664, 1973. 4. Milner BA et al: Differential Diagnosis of Multiple Sclerosis by Visual Evoked Potential Recording. *Brain* 97:755-772, 1974. 5. Regan D et al: Delayed Visual Perception and Delayed Visual Evoked Potentials in the Spinal Form of Multiple Sclerosis and in Retrobulbar Neuritis. *Brain* 99:43-66, 1976.

Acknowledgements

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Figure 6

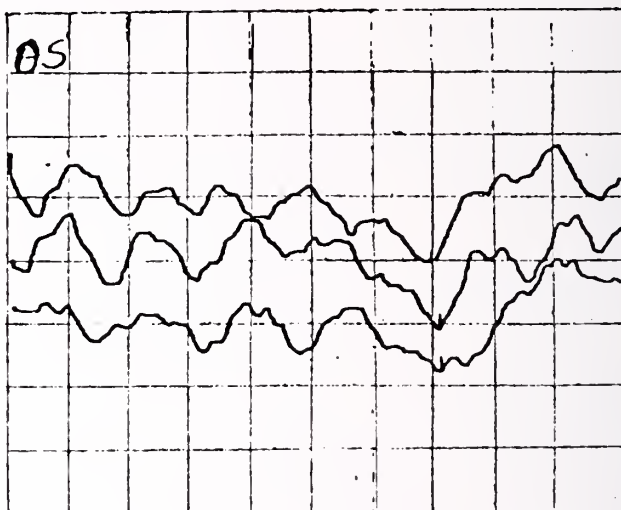
10
9
8
7
6
5

20 40 60 80

Intensity (dB)
Wave V

Latency (ms)

TEST #EP-036-80 TIME 250 ms
SENSITIVITY 50 DISPLAY MULT. 8
FULL SCALE = _____



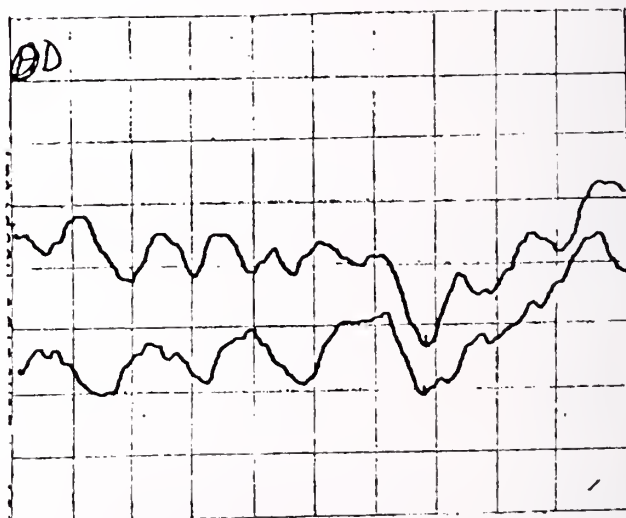
10
9
8
7
6
5

20 40 60 80

Intensity (dB)
Wave V

Latency (ms)

TEST #EP-036-80 TIME 250 ms
SENSITIVITY 50 DISPLAY MULT. 8
FULL SCALE = _____



Visual evoked potentials in an elderly M.S. patient. Both eyes had markedly prolonged latencies.

Hospital Mortality and Morbidity for Open Heart Surgery

ALLAN M. LANSING, M.D., Ph.D., ZAHY H. MASRI, M.D., ROLAND E. GIRARDET, M.D. AND S. MEHDI NAWAB, M.D.

All open heart procedures performed in adults at Jewish Hospital in 1979 were reviewed to determine the in-hospital mortality and morbidity. Coronary bypass grafts were done in 747 patients with a mortality rate of 1.2% and valve replacements in 187 with a mortality of 2.1%. Combined procedures, valvotomy, and repair of congenital heart defects, ventricular aneurysms and ascending aortic aneurysms were also reviewed. Major causes of morbidity included phlebitis, pulmonary embolism, bleeding, and myocardial infarction, but these occurred in less than 2% of the patients. Patients over 70-years-old and those with poor ejection fractions did as well as the group as a whole. The decision to recommend or deny surgical treatment of cardiac disease must be based on the most recent experience of the institution.

O PEN heart surgery has become an established method of treatment for coronary artery disease and its complications, heart valve malfunction, aneurysms involving the heart and great vessels and congenital heart problems. The decision to undertake open heart surgery is made by comparing the mortality and morbidity of the procedure with the expected effects on the patient's symptoms, functional state and survival. Progressive improvements in the pre-and postoperative care of the patient as well as in the operative technic have been accomplished, and hence it is important to know the present hospital mortality and morbidity. Consequently, we reviewed all of the open heart cases performed in adult patients at Jewish Hospital in 1979 to determine these figures. Seventy-six pediatric open heart procedures performed by the same team at Norton-Children's Hospital were not included.

Materials

Coronary bypass grafts were performed on 747 patients, and valve replacements in 187. Of the coronary bypass grafts, 62 patients had another cardiac procedure performed at the same time,

and 52 of the valve replacements were accompanied by a combined procedure. In addition, there were 60 other operations performed for congenital heart disease, ventricular aneurysm, ascending thoracic aneurysm, acquired ventricular septal defect, mitral valvotomy and pulmonary valvotomy.

The primary indication for coronary bypass grafting was disabling angina that did not respond to medical treatment or was increasing in severity. Patients with unstable angina were admitted to rule out myocardial infarction, stabilized, and then subjected to cardiac catheterization; operation was usually performed seven to 10 days later.

Patients who were found to have left main coronary artery disease were operated upon within 24 hours of catheterization, if the patient agreed. Patients with acute myocardial infarction were not operated upon for six to eight weeks unless persistent severe angina was present.

Patients with congestive heart failure were not denied operation if they had significant angina as well. Operative procedures were rarely performed for heart failure alone, unless the patient had a correctable lesion such as ventricular aneurysm, acquired ventricular septal defect, or mitral regurgitation. An ejection fraction as low as 15%

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was not a contraindication to operation since the mortality for these patients has been the same as for the group as a whole. Similarly, age has not been a contraindication providing the patient's general condition was satisfactory.

The operation has been performed in a standard fashion including hemodilution, moderate hypothermia, and cold potassium cardioplegia. Vein bypass grafts from the leg or arm veins have been used in all patients and a single period of aortic cross-clamping was used for all distal anastomoses. The anesthetic management has varied with the individual anesthesiologist, and has been left entirely to his discretion. Hypertension in the operating room and the postoperative period is vigorously controlled with intravenous nitroglycerin, hydralazine, or nitroprusside. Balloon pumping has not been required either in the pre-or postoperative period in any patient.

The indication for valve surgery has been a functional class III or IV state (New York Heart Association) in almost all patients. However, patients with an enlarging left ventricle associated with mitral or aortic insufficiency are advised to have operation, and operation is recommended to patients with aortic stenosis in whom the peak systolic gradient is 70mm or more, even though they have not deteriorated functionally. Patients with active SBE and valve dysfunction are operated upon if the cardiac function continues to deteriorate despite medical measures or if repeated peripheral embolism occurs, but otherwise the procedure is delayed for four to six weeks until the infection has been controlled.

The operative procedure for valve replacement is the same as for a coronary graft, but if the patient has severe aortic insufficiency the cold cardioplegia is injected directly into the left coronary ostium rather than into the aortic root. In this year the Carpentier-Edwards porcine valve was used in almost all replacements except for the occasional individual with a small aortic root, in which case the Bjork-Shiley mechanical prosthesis was employed. Postoperative anticoagulation is recommended for three months after which it is gradually discontinued unless the patient remains in atrial fibrillation, has a large left atrium, has had a left atrial thrombus, or has

required a mechanical valve. In these situations anticoagulation is continued indefinitely unless there is some contraindication such as patients with an ulcer history, those over 70-years-old, and those in whom the anticoagulation is difficult to control for medical or social reasons.

Results

A. Mortality (Tables 1-4)

1. Coronary Bypass Grafts (Table 1)

Seven hundred and forty-seven patients underwent coronary bypass grafts with a mean age of 57.5 years, and a range of 28 to 90 years. The male to female ratio was approximately 3.5 to 1. There were nine deaths in hospital, an operative mortality rate of 1.2%. The causes of death included stroke, (3) pulmonary embolism, (2) ventricular arrhythmia, myocardial infarction, pulmonary insufficiency and unknown. Thus the major causes of death were stroke and probably pulmonary embolism with no cases of low cardiac output and only two known cardiac deaths. The death following a single coronary bypass graft was a patient who underwent a reoperation and died shortly after a very difficult operative procedure. There was no apparent reason why the operative mortality was higher in this year for patients who underwent quadruple coronary grafts.

In addition, six patients died suddenly at home 12 days to six months after operation. One of these was on hemodialysis pre-operatively and died shortly after dialysis two months after operation. Two died of a myocardial infarction five and six months later, one of pulmonary embolus 12 days after discharge, and two suddenly of arrhythmia or pulmonary embolism six weeks later. Thus three of these six deaths that occurred at home were attributed to arrhythmia or pulmonary embolism, and perhaps might be preventable.

2. Valve Replacement (Table 2)

One hundred and eighty-seven patients underwent valve replacement with a mean age of 54.2 years and a range of 27 to 82 years. Males and

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TABLE I
Mortality—Coronary bypass Graft
1979

Operation	Cases	Age		Sex		Mortality	
		Mean	Range	M	F	No.	%
1 CBG*	77	56	33-90	48	29	1	1.2
2 CBG	215	57	30-83	163	52	0	0
3 CBG	303	58	36-84	248	55	2	0.6
4 CBG	147	58	28-74	123	24	6	4.1
5 CBG	5	62	51-69	5	0	0	0
Totals	747	57.5	28-90	587	160	9	1.2

*CBG=Coronary Bypass Graft

TABLE II
Mortality—Valve Replacement
1979

Operation	Cases	Age		Sex		Mortality	
		Mean	Range	M	F	No.	%
Aortic	75	57	29-79	53	22	1	1.3
Mitral	98	53	27-82	34	64	2	2.0
Tricuspid	3	45	31-57	0	3	0	0
Double	11	49	32-70	4	7	1	9.0
Totals	187	54.2	27-82	91	96	4	2.1

TABLE III
Mortality—Combined Procedures
1979

Operation	Cases	Age		Sex		Mortality	
		Mean	Range	M	F	No.	%
CBG+*	62	57	18-80	42	20	4	6.4
VR+**	52	61	19-80	35	17	2	3.9

*CBG+=Coronary Bypass Graft + another procedure

**VR+=Valve Replacement + another procedure

females were almost equally represented in the total group, but there was a preponderance of males with aortic valve replacement and of females with mitral. The mortality for 75 aortic valve replacements was 1.3% and for 98 mitral valve replacements was 2.0%. There were only 11 double valve replacements, one of whom died for a mortality of 9.0%. The causes of death in valve replacements were different in each case. One patient died of active bacterial endocarditis, which was present preoperatively. One patient who underwent mitral valve replacement died of a ruptured left ventricle which could not be repaired. One patient with end-stage renal disease on hemodialysis underwent mitral valve replacement, but died five weeks later of an arrhythmia while on hemodialysis. The fourth patient died of

low cardiac output and multiple organ failure, a condition that had been present preoperatively.

3. Combined Procedures (Table 3)

There is an overlap between these patients and those listed in Tables 1, 2, and 4. Sixty-two patients underwent coronary bypass grafting along with another procedure such as resection of left ventricular aneurysm, valve replacement, or repair of acquired ventricular septal defect or congenital heart defect. Four of these died, an operative mortality of 6.4%. The causes of death were pulmonary embolism in two patients, stroke in one and persistent low cardiac output and arrhythmia in one patient who underwent emergency repair of an acquired ventricular septal defect.

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Fifty-two patients underwent valve replacement along with another procedure, usually a coronary bypass graft. Two patients died, giving an operative mortality of 3.9%. There were no deaths in the patients who underwent aortic valve replacement along with coronary grafting and two patients died following mitral valve replacement and coronary grafting.

4. Other Procedures (Table 4)

Sixty patients underwent procedures other than valve replacement or coronary grafting. Thirty-five patients had a congenital heart defect repaired with two deaths. Both of these had severe Tetralogy of Fallot and a palliative shunt, which had been performed many years before. One patient with a Pott's shunt died two days after operation of a clotting defect that was never controlled, and for which the cause was not found. The second patient died 13 days postoperatively of increasing respiratory failure and probably pulmonary embolism.

Fourteen patients underwent resection of a left ventricular aneurysm with one death from pulmonary embolus, perhaps related to long-standing heart failure before operation, and three of four patients who had resection of an ascending aortic aneurysm survived. Only one of the two patients who underwent repair of an acquired ventricular septal defect survived, both of these being operated upon within the first two weeks after myocardial infarction because of intractable heart failure, low cardiac output and uremia. There were no deaths in the five patients who underwent open mitral valvotomy or pulmonary valvotomy.

B. Morbidity (Table 5)

The major causes of morbidity in hospital following open heart surgery are listed in Table 5. Once again, phlebitis and pulmonary embolus are major problems. All of the cases of phlebitis occurred in patients who underwent coronary bypass grafting with removal of the saphenous veins from the thigh. Similarly, all of the pulmonary emboli occurred in patients who underwent coronary bypass grafting. The diagnosis was made on clinical grounds along with chest x-ray and lung

scan, and a pulmonary angiogram was not performed unless embolectomy was being considered. We believed that the leg dissection was the major factor in this cause of morbidity and for subsequent deaths. At various times we have tried to control this by prophylactic low molecular weight dextran, leg elevation, mini-dose heparin and aspirin. So far, none of these measures has proved to be effective. The seriousness of the problem is indicated by the fact that three of the four sudden deaths in the first two months at home may also have been caused by pulmonary embolism.

Postoperative bleeding has not been a major factor over the years, but in 1979 was a more difficult problem and on 18 occasions we had to return the patient to the operating room to look for a source of bleeding. This was an incidence of 2%, which was much above our usual experience. In this period, however, some recommended changes were made in the postoperative neutralization of heparin and other bleeding factors. However, when the old regimen was reinstituted in January 1980, re-exploration for postoperative bleeding became rare once more, and has only been necessary three times in eight months (0.5%).

Postoperative stroke occurred six times, four in patients who underwent coronary grafting, one in a patient with a valve replacement, and once in a patient who had an aortic valve replacement and double coronary bypass graft. Thus five of the six patients had coronary arteriosclerosis, and we believe that these patients probably have cerebral arteriosclerosis as well. Cerebral arteriograms have not been done routinely, even in patients with carotid bruits, since the incidence of serious strokes after operation is less than 1%. However, if the patient has symptoms of transient cerebral ischemia, arteriograms are recommended, and if necessary carotid endarterectomy performed before the open heart procedure.

The incidence of myocardial infarction listed here, 14 in 747 coronary bypass grafts, may be deceptively low. Criteria for establishing a postoperative infarct vary widely, and hence the reported incidence is equally variable. ST and T wave changes are nonspecific following myocardial

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TABLE IV
Other Procedures
1979

	Cases	Mortality	
		No.	%
Congenital Heart Disease	35	2	5.7
Left Ventricular Aneurysm	14	1	7.0
Ascending Thoracic Aneurysm	4	1	25.0
Acquired VSD*	2	1	50.0
Mitral Valvotomy	4	0	0
Pulmonary Valvotomy	1	0	0

*VSD=Ventricular Septal Defect

TABLE V
Morbidity—Open Hearts
1979

	No.
Phlebitis	11
Pulmonary embolus	12
Bleeding	18
Stroke	6
Myocardial Infarct	14
Peripheral embolus	3
Hematoma	2
Jaundice	1

handling, and even new q-waves may be transient.

Technetium scans are misleading particularly when the patient has undergone defibrillation or dissection in the region of the coronary arteries. In addition, in the presence of a previous myocardial infarction, a preoperative scan is necessary to permit interpretation of the postoperative findings. Similarly, the enzyme studies are misleading since our previous studies showed that the rise in LDH, CPK, and SGOT correlated almost entirely with duration of the bypass rather than with the type of procedure being done, that is valve replacement or coronary grafting. Some elevation of the MB-CK is seen in almost all patients and probably indicates that some myocardial injury occurs almost universally.

In four of the 14 patients ST and T-wave changes occurred followed by the development of new q-waves, the MB-CK fraction was markedly elevated, and the clinical picture was one of tachycardia and decreased peripheral perfusion. These were obvious cases of myocardial infarction, but there were 10 other patients who developed new q-waves with or without an elevated MB-CK fraction, but in whom the postoperative course was unaffected. Inclusion of these ten patients gave an incidence of postoperative myocardial infarction of about 2.0% in the coronary bypass graft patients. Another four patients, operated on

as an emergency because of prolonged severe episodes of pain, were found to have signs of acute myocardial infarction with discoloration of areas of myocardium at the time of operation, and fortunately their postoperative course was also uneventful.

Other causes of morbidity in hospital included peripheral embolus, (3) hematoma of the thigh incision that required drainage (2) and hepatocellular jaundice in one case, for which no cause was found. The peripheral emboli followed coronary bypass grafting in two patients, probably caused by previous mural thrombi, and one patient had a peripheral embolus following open mitral valvotomy.

Discussion

The mortality of open heart surgery has decreased steadily despite operations performed on patients of increasing age and complexity of lesions. The mortality rate for patients over 70-years-old was almost the same as for the younger individuals, that is, one death in 46 coronary grafts (2.2%), and one death in 24 patients (4%) having valve replacement with or without coronary graft. We have continued to operate upon patients with poor ejection fractions (15-20%) with no increased mortality, and attribute this to excellent anesthesia, good myocardial protection in the operating room, and pharmacological sup-

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port when indicated. We have never found it necessary to use the intra-aortic balloon pump to carry a patient through open heart surgery. We previously reported our results for valve replacement and coronary grafting,¹⁻³ and the hospital mortality for coronary grafting has decreased 4.4% to 1.2%, for mitral valve replacement from 5.0% to 2.0% and for aortic valve replacement 3.2% to 1.3%.

The major causes of morbidity still include phlebitis and pulmonary embolism, stroke, and arrhythmia. The incidence of pulmonary embolism has not been affected by prophylactic measures including early ambulation, dextran, leg elevation, aspirin and mini-dose heparin. The incidence of serious stroke was less than 1% in the coronary patients and absent in other patients. It probably cannot be reduced by any measures other than cerebral arteriograms and carotid endarterectomy in symptomatic patients. Ventricular arrhythmias of a threatening nature have been less frequent, but still have been blamed for a few sudden deaths at home. Any complaints of palpitation in hospital are investigated by a Holter Monitor so that indicated prophylactic drug therapy can be instituted before discharge.

The major changes in the type of open heart surgery performed over the last five years have been the greatly increased number of coronary bypass grafts, and the use of porcine rather than mechanical valves. It is now fairly well established that coronary grafting does prolong life in selected patients, particularly those with left main coronary artery disease, triple coronary disease, and patients with decreased left ventricular function. In addition, the quality of life is improved in almost all patients, and 75 to 80% of them are reported to remain much improved symptomatically five years later.

The porcine valve is now the prosthesis of choice for us because of the reduced incidence of embolism, as compared to the mechanical valve. In addition, in most patients anticoagulation can be discontinued after three months. The durability of the valve appears to be quite acceptable up to nine years after implantation, hemolysis is less

frequent with tissue valve, and the problems of endocarditis appear to be similar with each type of valve. However, the small sizes of aortic porcine valves create too high a gradient, and mechanical valves must still be employed in these cases.

The increased experience of the team leads to a shortened hospital stay and reduced cost. This has been even further helped by the recent establishment of a special nursing unit to which all postoperative cardiac patients go. The association of the patients and families with each other has led to mutual support as well as competition in speed of recovery, and has lifted the morale of both families and staff. Regular teaching and educational programs for the patients and families during the recovery period prepares them for home, convalescence and adjustment of future life style.

Summary

The entire experience in open heart surgery at one institution for the year 1979 has been reviewed with reference to the hospital morbidity and mortality. The mortality for coronary bypass grafting was 1.2% and for valve replacement 2.1%. The major causes of morbidity were phlebitis, pulmonary embolus, myocardial infarction and postoperative bleeding.

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Psychiatrists—Physician First, Specialists Second

HARVEY R. ST. CLAIR, M.D.

Do psychiatrists really use their medical training in practice? No previous statistical documentation of psychiatrists' clinical application of their knowledge of the soma has been done. Fourteen different conceptual areas, each requiring medical school training, were studied by a survey of 121 private practicing psychiatrists from 33 states. Over 10,000 patient contacts revealed that medical services were rendered in 78% of contacts, and that "primary physician" types of services were almost as frequent as other types. The implications of this study are identified.

RECENTLY, there has been considerable emphasis on the psychiatrist as physician, the "medical model" and the "remedicalization" of psychiatry. No **statistical documentation of psychiatrists' clinical application** of the knowledge of soma has ever been done, however.

Four different primary medical arenas have been conceptualized. These are: (A) Psychiatric disorders; (B) Organic CNS involvement; (C) General medical and surgical conditions; (D) Medical Communications. Each will be coded by a number and briefly elaborated upon. Complete listing of all possible examples would be impossible, so each category is described only to identify its concepts.

While each of the 14 identified areas listed below is frequently interwoven with each other and also with psychological and social services being rendered simultaneously, nonetheless, for the purposes of this study, only those listed were included. Brief descriptions define the conceptual areas.

A. Psychiatric Illness:

1. **Psychiatric Drugs:** Prescribing, monitoring, evaluating, compatibility with other pharmaceuticals, duration, side effects, overdosage, etc.

2. **Somatic Therapies for Psychiatric Disorders:** Shock therapy, etc.

3. **Psychophysiologic and Somatopsychic illness:** Included here are cases where somatic ill-

ness is actually present and some responsibility for the physiological management of the patient is accepted.

B. Organic CNS Illness:

4. **Organic Brain Syndromes:** Diagnosis, medical management, ordering and interpreting special procedures, etc.

5. **Neurological Syndromes:** A few examples are strokes and Tourette Syndrome, Multiple Sclerosis and many syndromes that are in those gray areas between the psychiatric and neurological, such as some forms of migraine and some forms of seizures disorders.

C. General Medicine:

6. **Non-Psychiatric Drugs:** Those given for somatic problems, whether related to the psychiatric illness or to concurrent medical illness.

7. **Physical Examination:** Not only physical examination, but examinations of only the affected part.

8. **Interpretation:** Giving explanations of anatomical, biochemical, physiological and biological matters. Evaluating the significance of co-existing organic problems and assessing communication of these issues to the patient.

9. **Differential Diagnosis:** The ruling in or out of organic problems, including alertness to the possibility of unsuspected and hidden physical problems.

PSYCHIATRISTS—St. Clair

Table of Services
Actual Numbers

	Contacts		Total	% of Contacts	% of Services
	Hospital	Office			
Patient Visits	3778	7075	10853		
O- No services Rendered	346	2131	2477	22.8	
1. Psych. Drugs	270	3526	6228	57.4	36.2
2. Som. Treat.	465	103	568	5.2	3.3
3. Psychosom.	320	500	820	7.6	4.8
4. OBS	215	152	367	3.4	2.1
5. Neur.	170	155	325	3.0	1.9
6. Gen'l Med.	841	551	1392	12.8	8.1
7. P.E.	332	180	512	4.7	3.0
8. Interp.	597	1284	1845	17.0	10.7
9. Diff. Dg.	508	694	1202	11.1	7.0
10. Gen'l Med.	665	280	945	8.7	5.5
11. Emerg.	29	51	80	.4	.3
12. Authority	699	890	1589	14.6	9.2
13. Other M.D.'s	568	360	928	8.6	5.4
14. Test.	62	342	404	3.7	2.3
Total	1873	9032	17205		99.8

10. General Medical Care: Treatment of minor medical and surgical problems that do not warrant calling the regular physician, providing interim management of more involved problems until another physician can see the patient, organic problems associated with psychiatric illness, evaluating laboratory reports, etc.

11. Emergency Medical Care: This applies in situations where medical attention is needed as an emergency and a psychiatrist is the only M.D. present at the time. Examples of this would be "emergency codes" in hospital, cardiac arrest, managing convulsions and syncopal episodes, etc.

D. Medical Communication Issues:

12. Authority: Reported data include only those instances where the authority of the psychiatrist as a physician had to be utilized and other "authority" would not suffice.

13. Other M.D.'s: Working with other physicians involves knowing when to call in a consultant and how to be a consultant, being able to talk medical language and being treated as a peer, discussing problems that require collaboration with a physician team concept approach, discussion of the coordination of some pharmaceuticals, the timing of elective surgery, how much to inform the patient of a serious illness, etc.

14. Testimony: Disability evaluations, child custody issues, work restrictions, court depositions, involuntary hospitalization statements, incompetency, etc.

Data Collection

Psychiatrists participating in the study were asked to submit a report of every patient contact over a 10-day period, identifying those various medical services, if any, provided for each contact. All data are for private practice patients only.

The data are from 121 psychiatrists from 33 states, (Ala. 2, Ariz. 2, Calif. 12, Colo. 1, D.C. 2, Fla. 6, Ga. 3, Hawaii 2, Ill. 6, Ky. 18, La. 2, Md. 3, Mass. 3, Mich. 4, Mo. 1, Neb. 1, N.J. 6, N.Y. 17, N.C. 2, N.D. 1, O. 1, Okla. 1, Pa. 7, P.R. 1, S.C. 1, Tex. 3, Utah 1, W. Va. 1, Va. 2, Wisc. 2, Wyo. 1). Request for data were mailed proportionately over a two-year period so as to randomize seasonal variables. About a third were known to the author, the others selected at random from a national directory.

The problem of bias in reporting is admitted, and can be resolved by statistical validity. Anecdotal notes that accompanied the data ranged from one extreme to the other in their viewpoints. There also was considerable variation in practice patterns from doctor to doctor. The

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Distribution as to General
Types of Service

	Hospital	Office	Total	% of Contacts	% of Services
No. of Contacts	3778	7075	10853		
Psych. 1-3	3478	4129	7616	70.2	44.3
CNS 4-5	385	307	692	6.4	4.0
Gen'l Med. 6-11	2972	3004	5976	55.1	34.7
Med. Comm 12-14	1329	1592	2921	26.9	17.0
Services Total	8173	9032	17205		100

impression is clear, however, that this is a representative sample. A comment from one psychoanalyst was interesting, "I'll be damned! I'd forgotten I was a real doctor. Thanks for reminding me." The Kentucky group did not vary significantly from the national sample in any of the 14 areas except in number nine, Differential Diagnosis, where P-level of significance was only $-.05$. All other areas were statistically $P=NS$ or $.001$. It is admitted that the sample is really too small for scientific statistical validity and represents only trends and general impressions.

Each contact with a patient was treated as a separate unit of delivery of service. Every contact was identified by the initials of the patient. No attempt at a statistical breakdown of individual patients seen more than once was made because of the endless variations involved. It was noted, however, in a careful perusal of the same patients being seen repeatedly over the reporting period that they did not necessarily have the same medical services delivered during each subsequent contact.

Separate tables were made according to the location of the delivered service, whether hospital, office or phone. Not all reporting psychiatrists submitted data regarding phone contacts. Many reported anecdotally that there were too many phone calls to keep data. Of the 121 psychiatrists, 86 (79.5%) did both hospital and office practice; 36 (29.5%) did only office practice, and of these there were 11 psychoanalysts (9.0%).

Separate tables for hospital, office and phone contacts, for combined hospital and office types of practice, office only types of practice, and psychoanalysts were made but are not printed here. They are available upon request.

Observations

1. There was a surprisingly low percentage of contacts where no medical service was given, and only one physician, a psychoanalyst, never gave a single medical service of any kind. **Medical services were rendered in 78% of patient contacts.**

2. Medical services focused on general medicine (item 6-11) were delivered in 55% of patient contacts. Thus, on the average, psychiatrists function as a "primary physician" at one point every other time they see a patient, wearing their hat as a general physician rather than just as a psychiatrist.

Separate tables for office data in general medicine (6-11) show that office-only non-analysts do somewhat more than those who do both hospital and office practice. This indicates that those general psychiatrists who do office work only still clearly keep the medical paradigm before them.

Physical exams in the sample comprised 5.8% of the total hospital medical services and 2.5% of office services. Psychoanalysts reported no physical exams.

More general medical services, more non-psychiatric drugs, and more differential diagnoses were done with hospital contacts than with office

PSYCHIATRISTS—St. Clair

contacts. This further substantiates the role of psychiatrists as “general physician” when the patient is hospitalized.

Differential diagnosis of possible organic disease occurred in 13% of hospital contacts and 9% of office contacts, certainly not insignificant figures.

Medical emergencies involved .4% of hospital services, .9% of office services and 1.7% of phone services. While the actual percentage of total medical emergency services is low, the number of psychiatrists involved is high when a 10-day sampling is considered.

3. Multiple types of medical services were rendered during a single contact. The average number of services per patient contact was 2.9 for hospital, 1.0 for office and 1.38 for phone.

4. There was a lower percentage of neurological and organic CNS illness than would have been predicted. The distribution curves were fairly even so apparently the ratio of prevalence of these problems seen by psychiatrists in private practice is low in comparison with other problems.

5. Medical communication (12-14) involved 14% of hospital services, 24% of office services and 30% of phone services, with an overall average of 19%. The content of this area involved both psychiatric and general medical focused material, hence cannot be treated conceptually as either psychological or physiological care since it was both in an interwoven manner. Yet this is still a part of the total “physician” paradigm.

Comments and Conclusions

Psychiatrists, because of their medical school background, not only provide a broad range of clinical medical services, including “primary physician” ones, but more importantly keep a holistic view of their patients and maintain a dialogue with their non-psychiatrist physician colleagues. This survey documents that psychiatrists retain their identity of physician first, specialist second.

The implication for psychiatrists is that there is a constant need for CME updating in general medicine and surgery. There is considerable momentum now in this direction but each psy-

chiatrist needs to be keenly aware of this responsibility.

The implication for non-psychiatrist physicians is that there is a need to not only inform psychiatrists of the patient's total clinical status when making referrals but, whenever possible and whenever appropriate, give a brief educative update on the scientific details of the organic aspects involved. Just as psychiatrists have a responsibility to share information in their areas of expertise with non-psychiatrist physicians, so non-psychiatrist physicians have a responsibility to share information in their fields. Anecdotal observation is that physicians are reluctant or too busy to do much of this in interspecialty exchanges. This is unfortunate and should be improved upon.

The implication for medicine in general is that we all need each other and the sharing of new information is essential for quality care. The leadership of all specialty groups should consider the responsibility of interspecialty exchange of new knowledge.

The implication of this study for health planners and the public is that a much more accurate clarification of some of the roles and identity of psychiatrists can now be substantiated by documentation of the delivery of clinical services.

“The Cartesian division between mind and body, I think, is a piece of old-fashioned magic which we had better forget”.¹⁵

J. Bronowski

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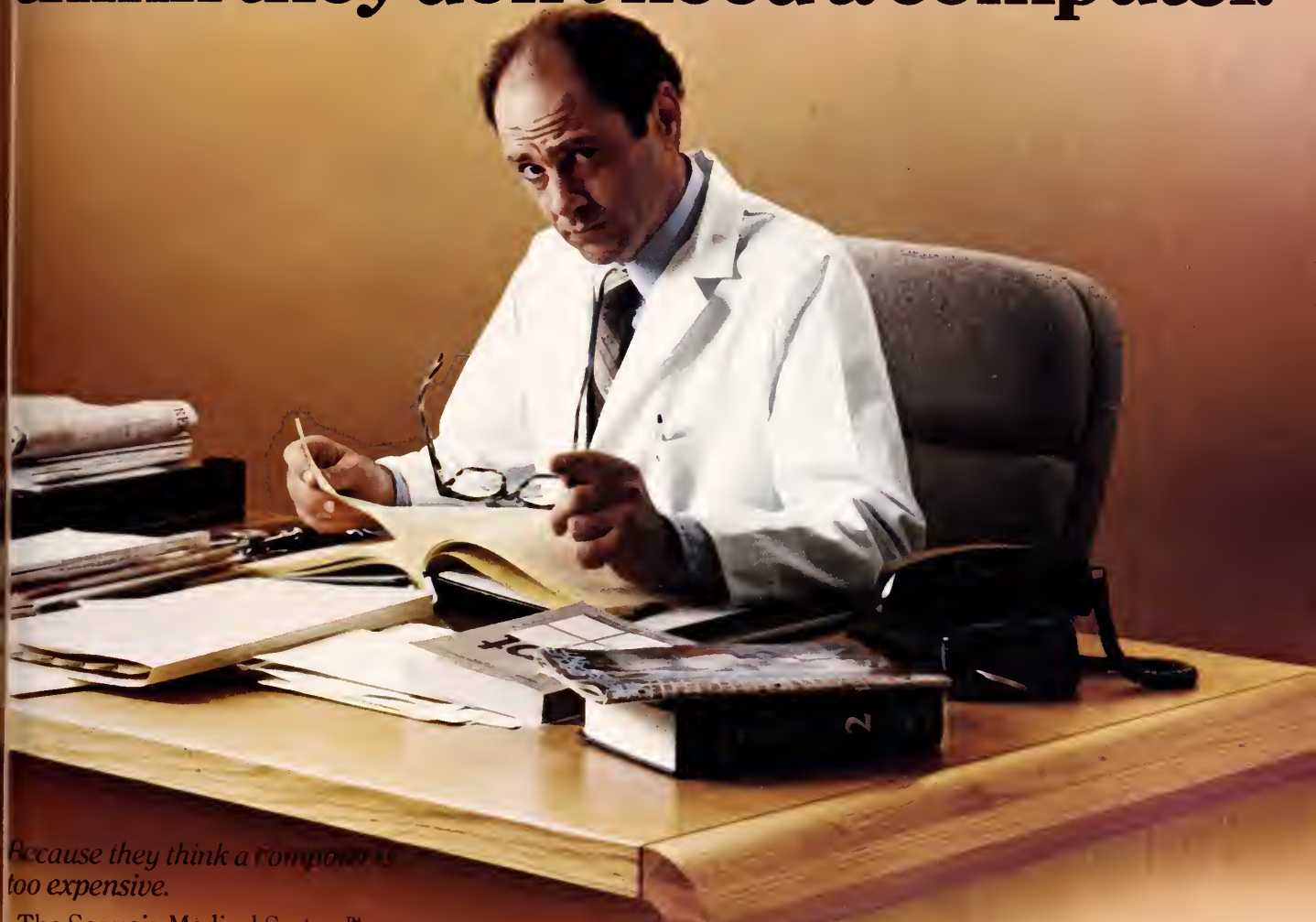
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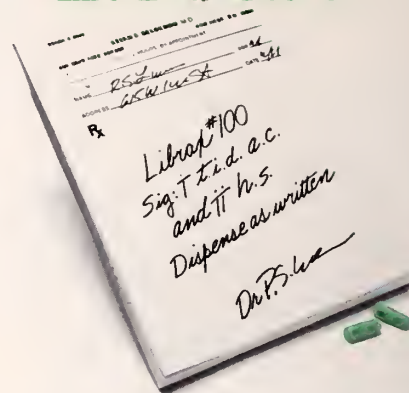
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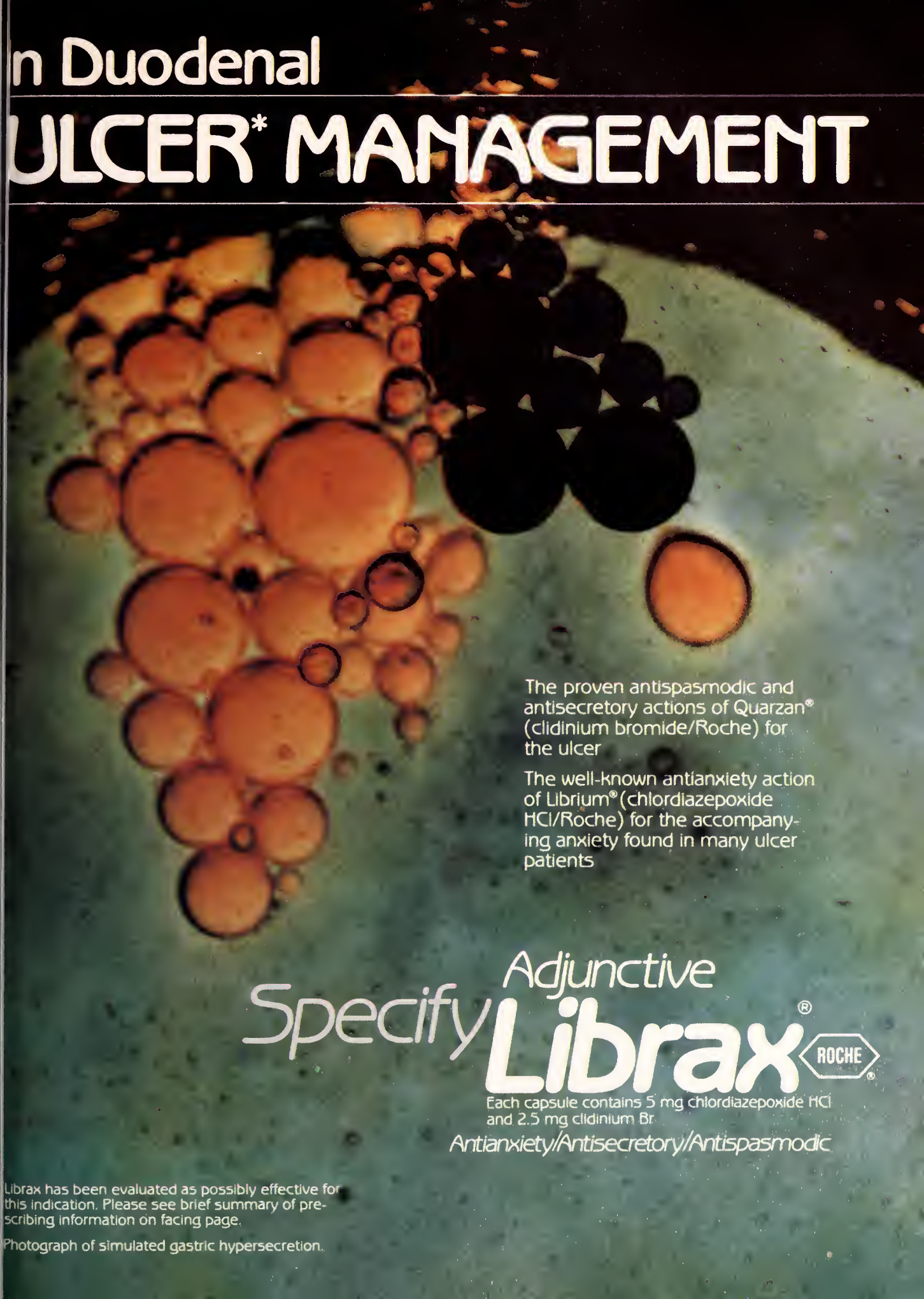
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ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSEAGE: Manifestations of acute overdose include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdose.

Product Information as of January, 1980

MERRELL-NATIONAL LABORATORIES INC.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL DOW PHARMACEUTICALS INC.
Subsidiary of The Dow Chemical Company
Cincinnati, Ohio 45215
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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride. In *Central Mechanisms of Anorectic Drugs*, S. Garattini and R. Samanin, Ed., New York. Raven Press, 1978, pp. 391-404.

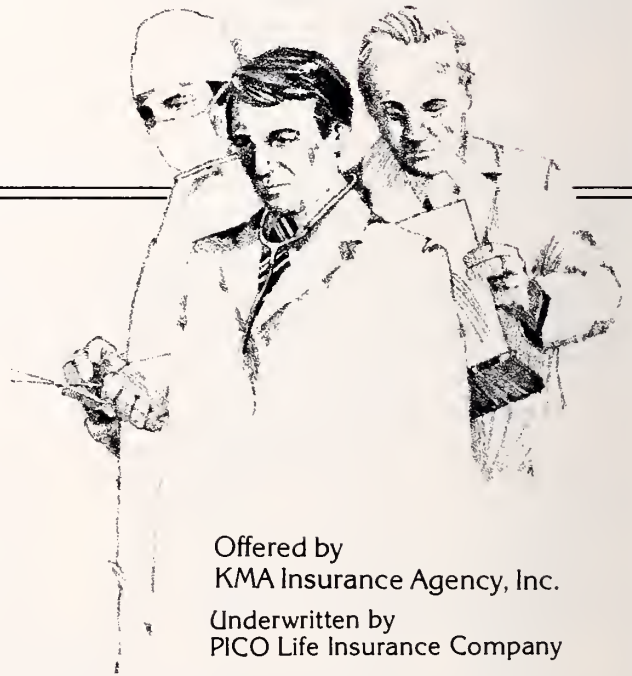
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BUDGET cutting is now in vogue. From the federal chambers in Washington to the more sedate Frankfort, our representatives grapple with the final ingredients that will blend to make a palatable government. Perhaps if the largess of the past two decades had never transpired, we the people would not be so transfixed with the usefulness of many government programs. That particular exchange of people and money between the united super-power in Washington and the individuals anchoring the ship at home has infused us with agencies and the like. To divorce ourselves from what has become part of the daily structure is proving to be difficult.

Organized medicine has attempted to engineer a compromise between its practitioners in the field and the various governments seeking to regulate them. Programs created to enhance medical care delivery have been accepted though sometimes with ambivalence. Now the financial lifeline is being compromised. The same vigor that fueled our efforts to keep the government on legitimate grounds must now be harnessed into making the changes in local care sufficient to absorb the loss of government programs. Not that we must compensate for all things that are losing their vitality. More we should take the positive leadership role by aggressively supporting these government efforts that have proven worthwhile. Our legacy as a profession has been the improvement in health care with time. These times of financial conservation should not discourage continuing this legacy.

SZS

It is my impression that doctors collectively are reluctant to write NO CODE 300 when a patient may be hopelessly ill with no chance of recovery. The origin of this reluctance may be more legal than medical. The decision to let a patient die is obviously not one to be made casually and without careful consultation with the family. However, I think most clinical situations are clear enough that one can be definite in the recommendation to the family.

If presented in terms of what you would do if it were your own family, and that conviction is clearly stated, most families are enormously relieved to be freed of the decision as to how far to go.

Modern medicine is not always the best medicine.

PCG

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In the treatment of impetigo—

- **100% cure rate with Tegopen®** (cloxacillin sodium)
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. No treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular.

(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but no failures with Tegopen.

		Given Tegopen® (cloxacillin sodium)	Given penicillin V-K
<i>Staphylococcus aureus</i>	(78 patients)	39	39
Returned to clinic at one week.....		29†	38†
Treatment failure at one week		0	18 (47.4%)
<i>Staphylococcus aureus</i> and <i>Streptococcus pyogenes</i>	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic <i>Streptococcus</i>	(1 patient)	0	1
TOTALS:	102 patients	52 patients	50 patients

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported

the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus*, 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes*, and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.

- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®

(cloxacillin sodium)

**-effective therapy for staph infections
of the skin and skin structures**

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose

stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q 6h.

Children: 50 mg./Kg./day in equally divided doses q 6h. Children weighing more than 20 Kg should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS

SUPPLIED:

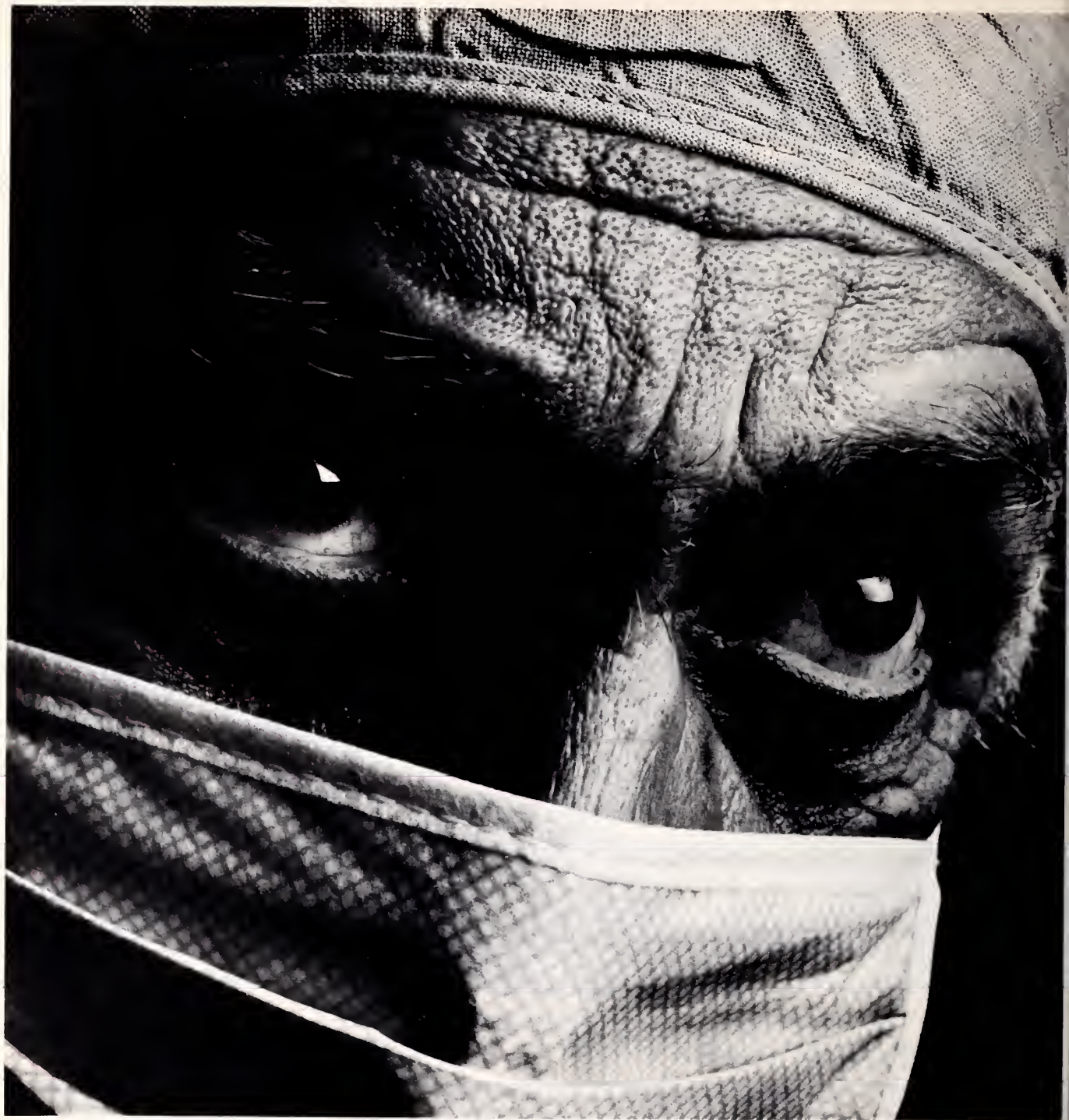
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Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the *Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

Changing Patterns in the Threats to Health for Kentuckians 1900-1980

The twentieth century has been a century of change more than any century that has gone before. We could imagine that a farmer of Julius Caesar's time might have fitted into the agricultural system in the 19th century with only minor adjustments, but the changes of the last 100 years are so substantial that we even read about future shock.

Although a few significant discoveries had been made in medicine, life expectancy in developed countries in 1900 was not substantially better than it was in ancient Rome, and the treatment methods of Hippocrates were still the best available in many cases.

In the Bible, in Psalms 90:10, life expectancy is given as three score and ten. In biblical times that was true for many individuals, but not for the average individual. Even in 1900 the **average** life expectancy was only in the neighborhood of 50 years. Now our average life expectancy is about 73 years, and it exceeds slightly the biblical mark.

There is a general feeling that great progress has been made. Average life expectancy did climb dramatically from 1900 to 1950, from 50 to about 70, but it has not increased significantly in the last 30 years.

Since the population as a whole is living much longer, there is a substantial change in the age distribution of our citizens. In 1900, only 3.5% of our total population was over 65—one in every 30 citizens. Today, we have almost 12% over 65—one in every eight citizens. (See the comparative population pyramids in Figures 1, 2, and 3.)

The difference in life expectancy now compared to life expectancy in 1900 is that the communicable diseases that had stolen away the lives of so many children and young adults for centuries, indeed which ravaged all populations up to the early decades of this century, have succumbed to new and more effective prevention and treatment strategies. A major aspect of improved health is the general economic level which allows the majority to live with adequate nutrition, safe drinking water, adequate clothing, housing, etc.

Changing patterns in disease led to the changing patterns in causes of death. (See Table 1) In 1900 in Kentucky tuberculosis was the leading cause of death, and four of the top 10 killers were infectious diseases. Today there is only one infectious killer in the top 10—influenza and pneumonia—and that impacts primarily the elderly and

1911

	Number	Percent
1 Tuberculosis, all forms	4,253	18.1
2 Pneumonia & influenza	2,005	8.9
3 Congenital debility & malformations	1,420	6.1
4 Organic diseases of heart	1,368	5.8
5 Violent deaths (exc. suicide)	1,330	5.7
6 Ill-defined and unknown	1,072	4.6
7 Nephritis Bright's disease	1,010	4.3
8 Diarrhea & enteritis (-2 yrs.)	970	4.1
9 Typhoid fever	830	3.6
10 Cancer	890	3.8

13.1%
CHRONIC
DISEASE

LEADING CAUSES OF DEATH

1911 - 1940 - 1979

KENTUCKY

Table 1

TOTAL DEATHS - 23,473 (100%)

Source: Table 3, Page 288, Mortality Statistics, 1911

1940

	Number	Percent
1 Heart disease	6,201	21.1
2 Cerebral hemorrhage	2,957	8.9
3 Pneumonia & influenza	2,717	9.1
4 Cancer	2,026	6.1
5 Accidents	2,302	7.7
6 Nephritis	2,167	7.3
7 Tuberculosis	1,941	6.5
8 Diseases peculiar to the first year of life	1,635	5.5
9 Arteriosclerosis	841	1.5
10 Diabetes mellitus	422	1.4

49.3%
CHRONIC
DISEASE

Source: Vitel Statistics Report, 1940

TOTAL DEATHS - 29,013 (100%)

1979

	Number	Percent
1 Diseases of heart	12,716	39.2
2 Malignant neoplasms	6,599	20.3
3 Cerebrovascular disease	3,097	9.5
4 Accidents	1,902	5.9
5 Influenza & pneumonia	802	2.5
6 Diabetes mellitus	584	1.8
7 Arteriosclerosis	400	1.5
8 Suicide	467	1.4
9 Cirrhosis of liver	382	1.2
10 Homicide	355	1.1

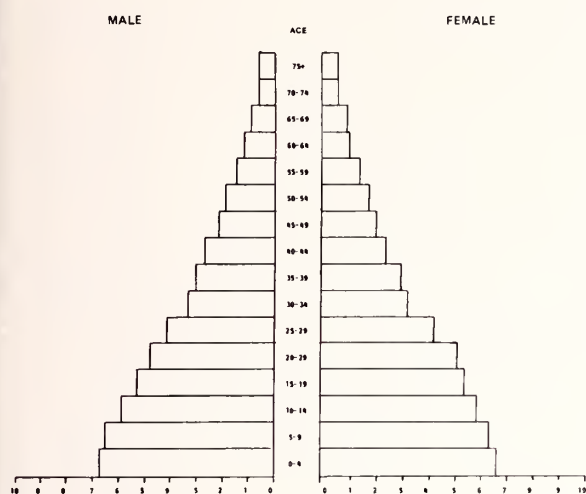
72.4%
CHRONIC
DISEASE

Source: Death Certificates Calendar Year 1979;
Entered into Automated Vital Statistics
Information System

TOTAL DEATHS - 32,430 (100%)

All tables prepared by the Health Data Branch, Bureau
for Health Services, Department for Human Resources,
January 1981

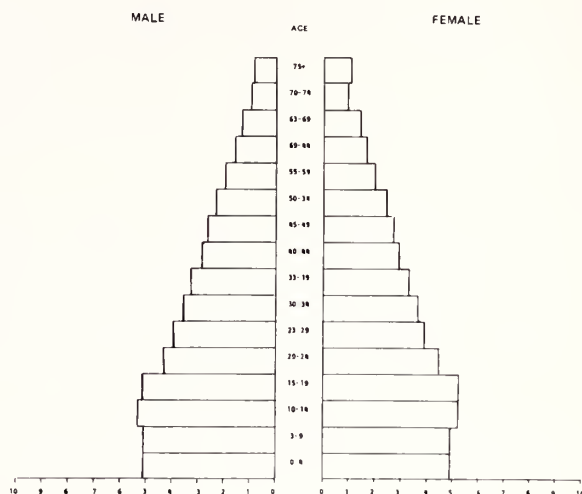
POPULATION DISTRIBUTION
KENTUCKY
1900
Percent of the Total Population by Age and Sex



Source: Urban Studies Center/University of Louisville
Prepared by: Health Data Branch, Bureau for Health Services, Department for Human Resources, January 1981

FIGURE 1

POPULATION DISTRIBUTION
KENTUCKY
1940
Percent of the Total Population by Age and Sex



Source: U.S. Department of Commerce/Bureau of the Census
Prepared by: Health Data Branch, Bureau for Health Services, Department for Human Resources, January 1981

FIGURE 2

the debilitated. Our major problems today are chronic diseases, most of which are caused or aggravated by our lifestyle—e.g., heart disease, cancer, stroke, diabetes, cirrhosis, etc.—or are traumatic problems related to lifestyle—accidents, suicide, homicide.

The changing pattern of tuberculosis is reflected by Figure 4 which shows the continuing reduction of tuberculosis as a health threat since 1940 in the State of Kentucky. In 1940 there were 130 reported cases of TB per 100,000 population, but in 1979 there were only 15 reported cases per 100,000. The death rate for tuberculosis was almost 200 per 100,000 in 1900, then 65 per 100,000 in 1942 compared to one per 100,000 in 1979. It is presumed that other major debilitating factors besides active tuberculosis were present in many of the 67 deaths attributed to tuberculosis in 1979. Of these deaths 49 occurred in individuals over 65.

As shown in Table 1, chronic diseases accounted for 72% of all Kentucky deaths in 1979, compared with less than 13% in 1911. Some au-

thorities have become unduly excited about the increasing ratio of deaths from chronic disease, implying that somehow society in general and the medical profession in particular have failed to be responsive to the needs of people suffering from chronic diseases. This criticism does not take into account the fact that the individual death rate is the same as it has always been—one per person. Death is inevitable. Indeed, Figure 5 shows rather dramatically that a very sharp decrease in deaths from communicable and infectious diseases has been accompanied by an almost as sharp increase in deaths from chronic diseases. But deaths from chronic diseases occur at higher ages. Once one has survived the early years by escaping death due to trauma or infectious diseases one is automatically a candidate for degenerative and neoplastic diseases. At any point on the graph, total deaths per 100,000 from both chronic and infectious categories of diseases are roughly the same.

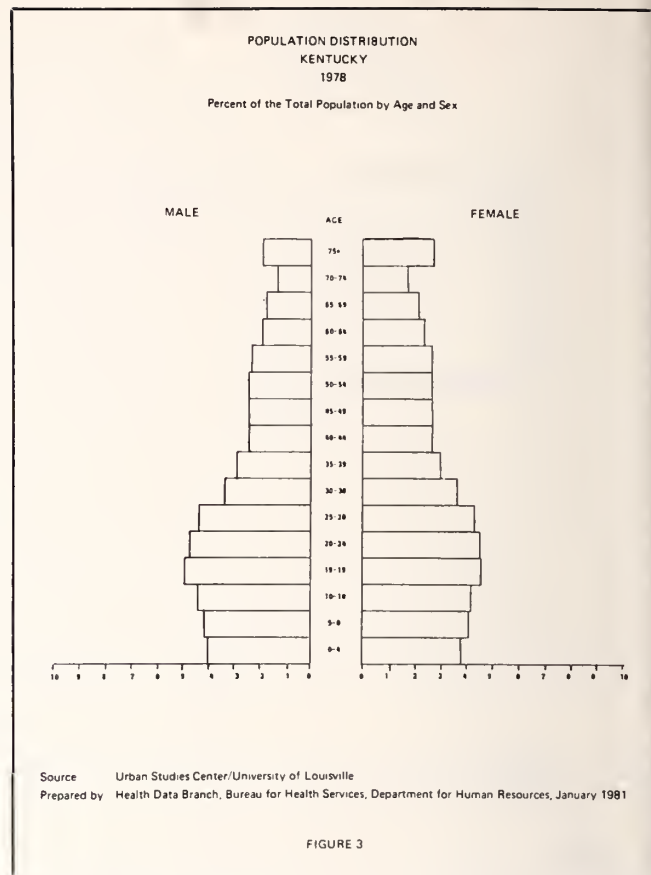
There are at least two lessons to be drawn from this quick look at comparative death statistics.

First, chronic diseases are now the lion's share of the problems our medical system must address. And as the elderly become a larger percentage of the total population, we may expect conditions to become even more prevalent. This will certainly increase the demand for certain kinds of medical services and should be reflected in the changes in our methods of service delivery and the kinds of institutions we build to address the health needs of our citizens.

The second lesson is that it is irrational to speak of eliminating deaths from chronic disease. We may have some effect on premature deaths, and we certainly would wish to reduce the debilitating effects of chronic illness. Although we must continue the search for preventive measures for heart disease, cancer, and stroke, we must learn to live with the inevitability of various degenerative processes. Meanwhile, there are effective measures which can be used to delay the onset of these conditions, and almost certainly lessen their impact. A balanced diet, abstinence from cigarettes, moderate and regular exercise, together with other accepted practices of good health all serve the purpose of increasing the body's defenses against chronic illness before it begins, and against the deleterious effects of chronic illness after it has once appeared.

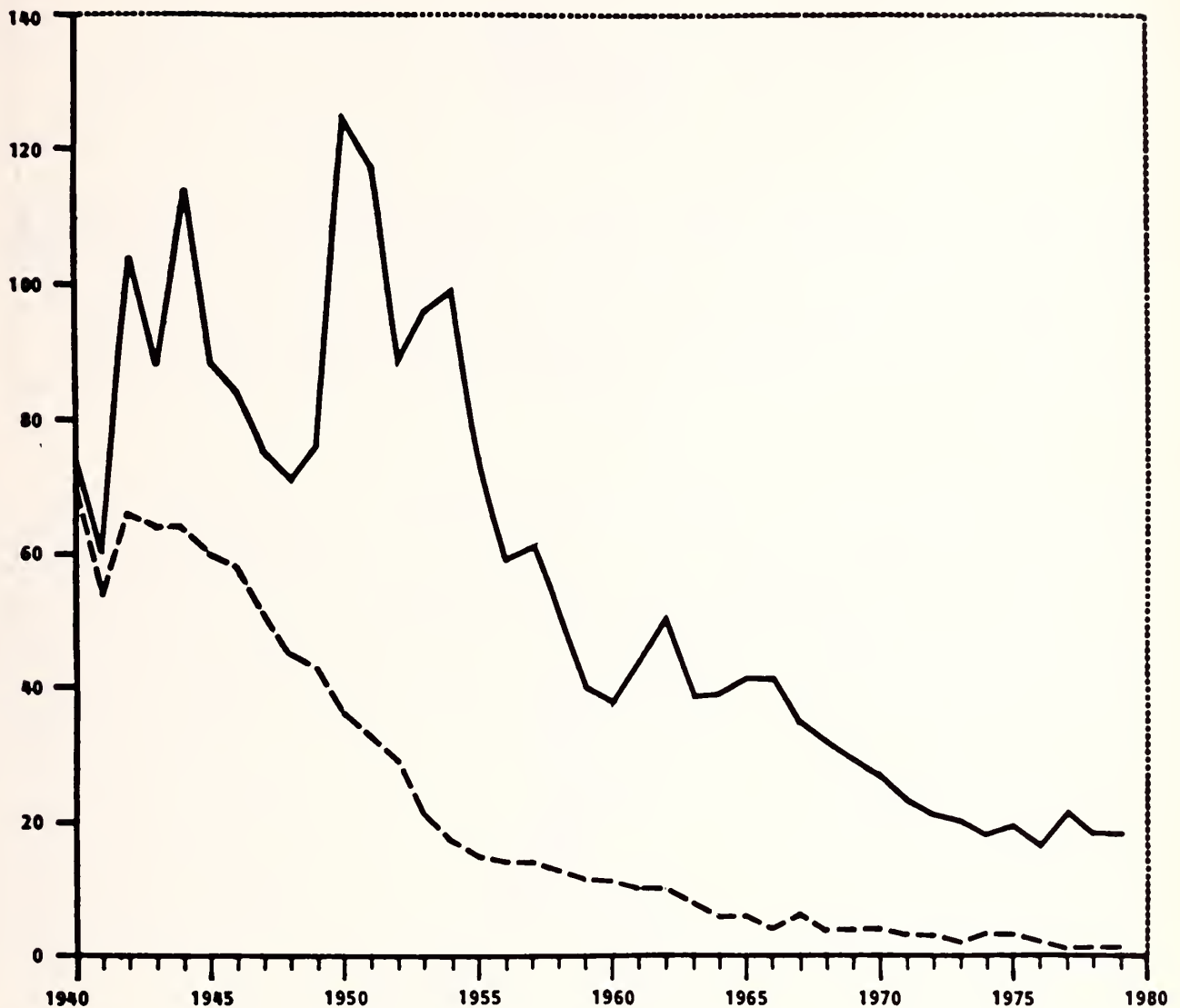
The major determinant of our health status is clearly how we live. Dr. Lester Breslow observed, "It's what you do hour by hour, day by day, that largely determines the state of your health; whether you get sick, what you get sick with, and perhaps when you die." Rene Dubos once wrote, "To ward off disease or recover health, man as a rule finds it easier to depend on the healers than to attempt the more difficult task of living wisely."

Medical knowledge has been increasing logarithmically; that is, it has doubled every few years. The progress made both in knowledge and in the capacity to use that knowledge beneficially has become almost immeasurable. But this explosion in knowledge has not changed the fact that death is inevitable. It is for us to decide whether the dramatic improvements in medical care will be applied to improve quality of life or simply to prolong a lingering death.



**W. Grady Stumbo, M.D.
David T. Allen, M.D., M.P.H.
Robert Nelson**

TUBERCULOSIS CASE RATES* AND DEATH RATES*
KENTUCKY 1940-1979



* Rates per 100,000 population
All Forms Tuberculosis

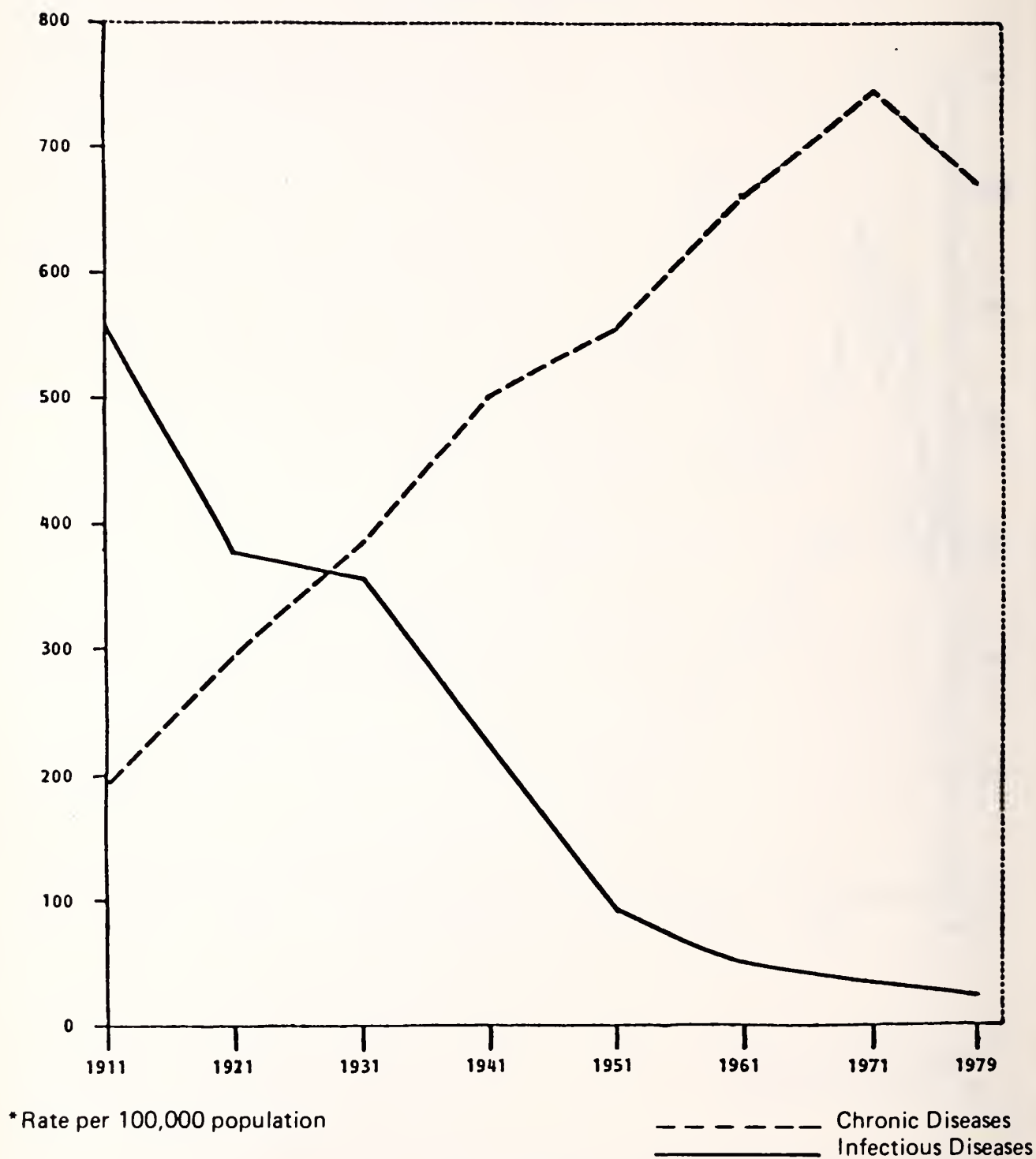
———— Case Rate
----- Death Rate

Source: Kentucky Department of Health, Division of Tuberculosis Control

Prepared by: Health Data Branch, Bureau for Health Services, Department for Human Resources,
January 1981

FIGURE 4

DEATH RATES* DUE TO SPECIFIC CHRONIC AND INFECTIOUS DISEASES KENTUCKY 1911-1979



Source: Vital Statistics Reports 1911-1979

Prepared by: Health Data Branch, Bureau for Health Services, Department for Human Resources,
January 1981

FIGURE 5

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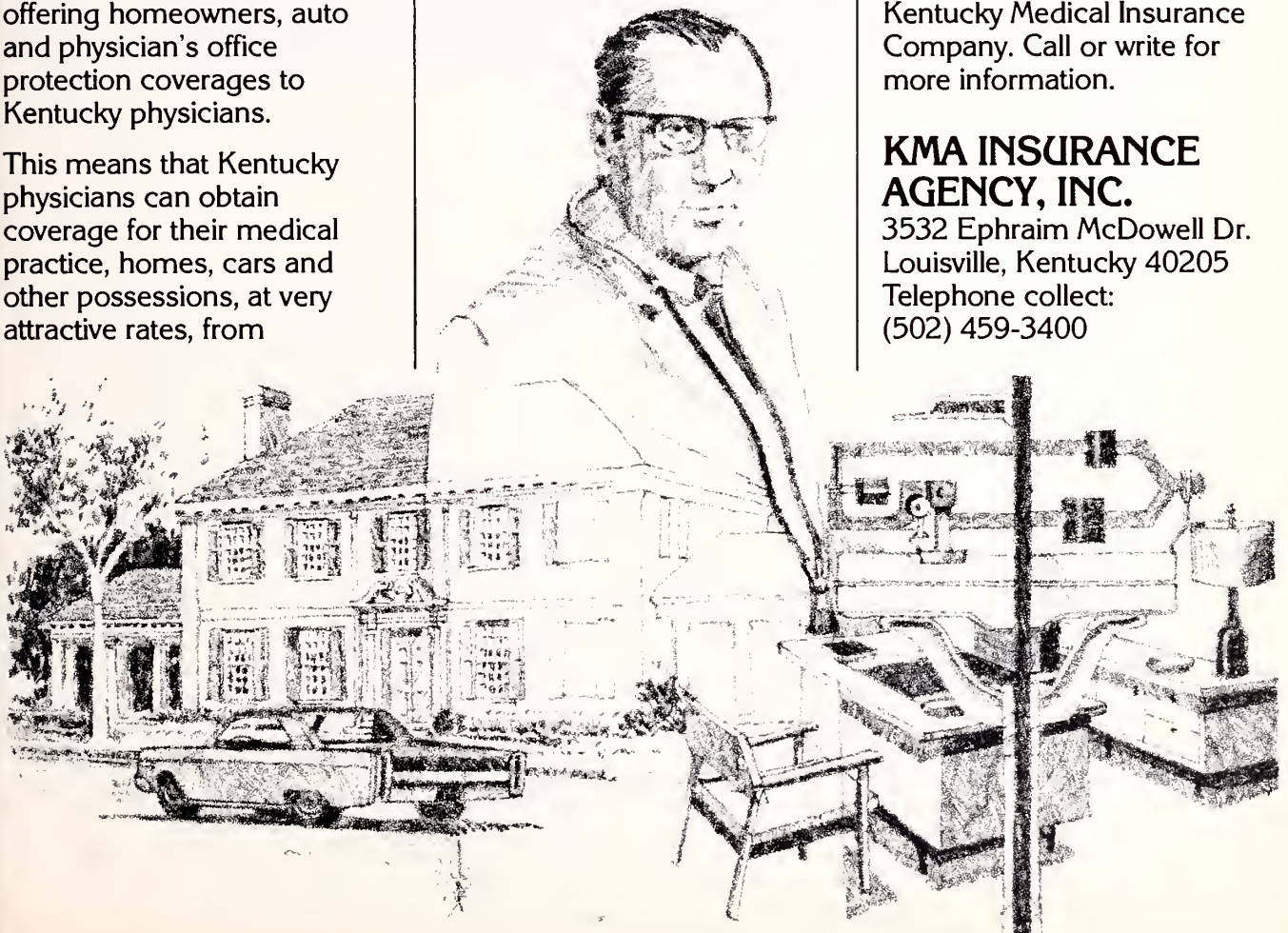
companies that really have their best interests in mind.

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Advances in Internal Medicine

Gene H. Stollerman, M.D., Editor, Yearbook Publications, 1981, 579 pages

The current *Advances in Internal Medicine*, 1980, is now published. This 26th volume carries on the tradition of compiling a group of topics germane to clinical and investigational medicine. Never were these succinct volumes meant to challenge the universality of their parent textbooks of medicine. Rather they are placed in the niche created by the surfeit of journal information and the nagging chore of remaining in tune. Each former volume covered a spectrum of medical topics, and this current book addresses itself to the following material. The natural opioid polypeptides, endorphins and enkephalins are popular representatives for the everlasting search to find the chemistry of life processes. This section gets very fundamental, yet much advanced material is included—a heavy chapter to begin the book! The Galactorrhea-Amenorrhea syndrome is defined, organized into a diagnostic entity and highlighted by bromocryptine and surgical therapy. Back to relevancy with a crisp, factual and non-proselytizing discussion of dietary therapy for diabetics. We seem to be in the age of metals with the elevation of zinc to a place in the critical milieu. Both the metabolism of and the clinical picture of zinc abnormalities are related. Dr. DeVita of the N.C.I. crystallizes the current dogma on chemotherapy with some overview in an attempt to avoid obsolescence by publication time. Two sections deal with hematologic dysfunction, thrombotic thrombocytopenia purpura, and iron overload. Neither section is particularly remarkable yet they are sufficient to modernize ones learnings.

The next three sections deal with various aspects of gastrointestinal medicine. Hepatitis, both non-A and non-B, has current epidemiology, clinical features and investigational advances. The pancreas and its amylase enzyme is grist for a complicated chapter but worth the time. Therapeutic advances in bowel resection adaptation, vasodilator therapy in CHF and renal calculi treatment are explained though not in enough detail for the immediate use by the clinician. The maturation of immunologic medicine is credited with timely sections on endotoxin immunity, DNA antibodies and the uncommon but intriguing myasthenia gravis.

Finally, if the reader is not overly fatigued, the sleep apnea syndrome will not be soporific and perhaps enlightening. All in all this is a worthwhile addition to the library; once read the bibliographies are excellent starting blocks for further study.

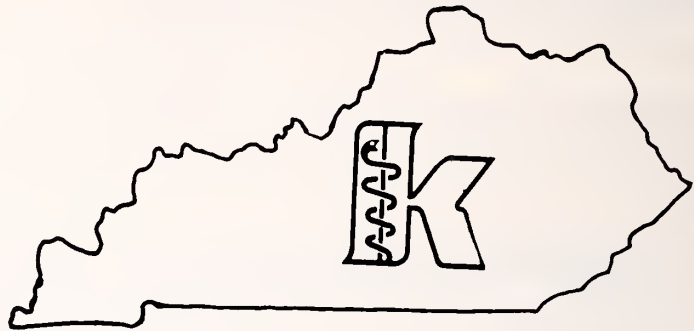
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Louisville, Kentucky 40232

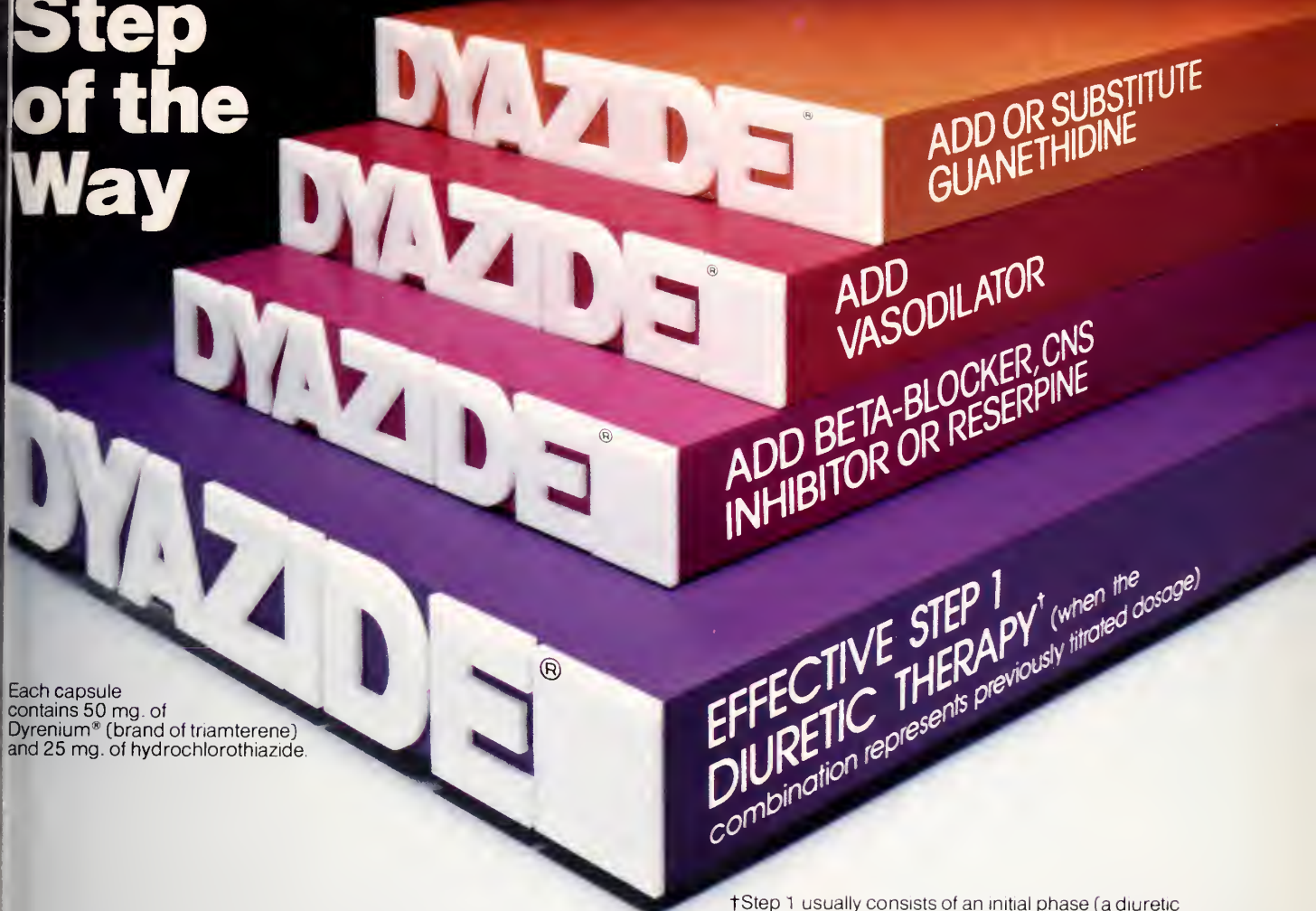
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Sponsored by the Kentucky Medical Association

In Hypertension* ...When You Need to Conserve K⁺

Every
Step
of the
Way



Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

**EFFECTIVE STEP 1
DIURETIC THERAPY*** (when the
combination represents previously titrated dosage)

*Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. The following is a brief summary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and tri-

amterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently, both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted

cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria; photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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a SmithKline company
Carolina, P.R. 00630

Motrin[®] vs aspirin w/codeine...

(ibuprofen)



compare the analgesic effect

A Motrin 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients.

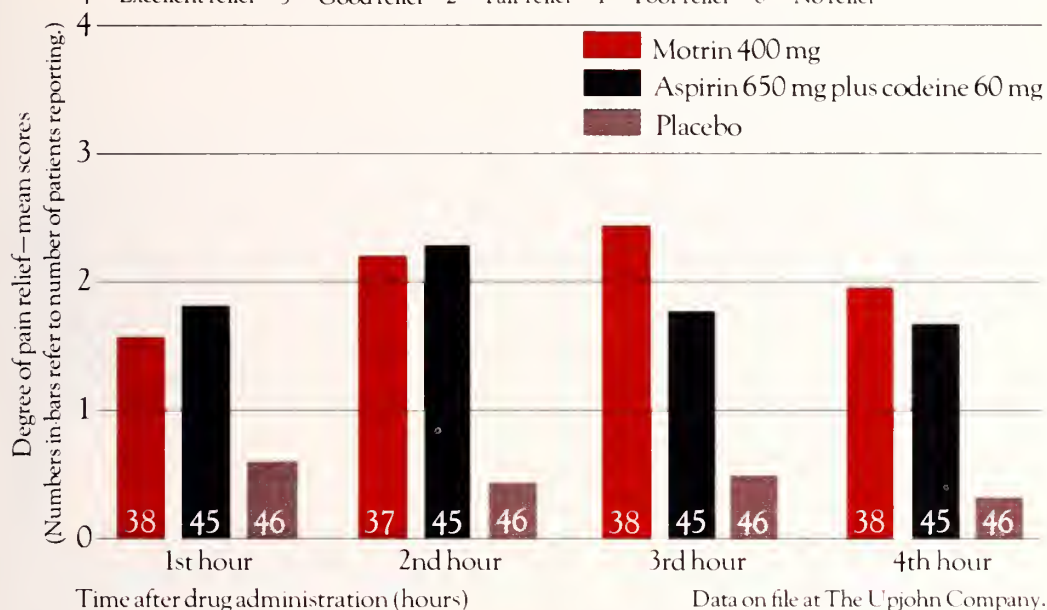
In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the Motrin and aspirin-with-codeine groups... with Motrin being significantly more effective ($p = 0.03$) at the three-hour interval.

Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief

Motrin vs aspirin-codeine combination

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



One tablet q4-6h prn

For relief of mild to moderate pain:

Motrin[®] 400mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming • Nonscheduled
- Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with Motrin is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen)

now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels.

Coumarin: Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease. Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

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MED B-4-S

MAKE YOUR MARK AND BE COUNTED...

If you haven't already, now is the time to complete the 1981 Census of Physicians' Professional Activities.

Doing so will assure:

- that your official record is updated
- that you are accurately represented in the 28th Edition of the *American Medical Directory*
- that you continue to receive the educational and scientific materials relevant to your professional interests

Call or write if you have not received a census form
Division of Survey & Data Resources
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610
312-751-8435

PPA CENSUS

1. Please indicate whether you are a:

2. How many hours per week do you spend on DIRECT CARE OF PATIENTS?

3. How many hours per week do you spend on MEDICAL TEACHING?

4. How many hours per week do you spend on MEDICAL RESEARCH?

5. How many hours per week do you spend on other medical activities (not listed above) involving DIRECT CARE OF PATIENTS?

6. How many hours per week do you spend on OTHER MEDICAL ACTIVITIES (not listed above) not involving care of patients?

7. How many hours per week do you spend in ALL PROFESSIONAL ACTIVITIES? For Residents, this is the total of questions 1, 6 and 7. For all other physicians this is the total of questions 2 - 7.

8. About how many hours per week do you spend in ALL PROFESSIONAL ACTIVITIES? For Residents, this is the total of questions 1, 6 and 7. For all other physicians this is the total of questions 2 - 7.

9. U.S. Government

10. OTHER ORGANIZATION - N

Indicate Federal Agency

1 ☐ Army 2 ☐ Navy 3 ☐ Air Force 4 ☐ Veterans Administration 5 ☐ Other

10

Guest Speakers and an Afternoon at Churchill Downs Highlight Emergency Medical Care Seminar

Janice A. Mendelson, M.D., combat trauma specialist and Colonel in the U.S. Army Medical Corps, and George R. Nichols, II, M.D., Kentucky's chief medical examiner, will be the featured speakers at the 11th Annual KMA Emergency Medical Care Seminar, June 9, 10 and 11, at the Executive West Hotel, Louisville.

Doctor Mendelson is a former Chief in the Department of Surgery at the U.S. Army Hospital, Ft. Campbell, Ky. She is former Director of the Armed Forces Central Medical Registry, Brook Air Force Base, Texas, and spent one year in Vietnam as general surgeon and surgeon advisor of the U.S. Military Assistance Command. During her luncheon presentation on June 9, Doctor Mendelson will discuss "Initial Care of Multiple Injured Patients."

George R. Nichols, II, M.D., is a forensic pathologist at the University of Louisville. He is chief medical examiner for Kentucky and is Medical Director of the International Clinical Laboratory in Louisville. He is also assistant clinical professor in the Department of Pathology at the University of Louisville School of Medicine. Doctor Nichols topic will be "Protecting the Evidence" at his presentation as luncheon speaker on June 10.

Additional highlights at this year's Seminar include Manual Skills Workshops, Ambulance Competition and a special day at the races, June 11, after the morning scientific meeting.

Registration for the program is \$15 per day which includes lunch on the 9th and 10th and admission to Churchill Downs and lunch on the 11th. CME credit has been approved from AMA, KAFP and ACEP. CME credit has been applied for from EDNA and the National Registry of EMT's.

KMA members attending the Seminar are also invited to take an evening cruise on the Belle of Louisville, Wednesday evening, June 10. The International Association of Coroners and Medical Examiners will be holding its convention in Louisville on this date and is sponsoring the Belle cruise. The \$25 per person charge includes the cruise, buffet dinner and open bar. The Belle will board at 7:00 p.m. and return at 11:00 p.m. If you are interested in attending, please contact the Headquarters Office or Richard F. Greathouse, M.D., 5 Triangle Center, Louisville, 40220, (502) 458-3219.



Doctor Mendelson



Doctor Nichols.



11th Annual EMERGENCY MEDICAL CARE SEMINAR

Tuesday, June 9, 1981

Morning Session

8:00 a.m. Registration

8:40 a.m. Welcome and Orientation

*E. Truman Mays, M.D., Chairman
KMA Emergency Medical Care
Committee*

Moderator: Dennis B. Kelly, M.D., Lexington

9:00 a.m. "Cranial Injuries (Trauma)"

William H. Brooks, M.D., Lexington

9:30 a.m. "Facial & Ophthalmologic Injuries"

Drew Dillman, M.D., Louisville

10:00 a.m. Coffee Break

10:20 a.m. "Thoracic Injuries"

G. Richard Braen, M.D., Lexington

10:50 a.m. "Abdominal Injuries"

Hal E. Houston, M.D., Murray

11:20 a.m. "Musculo-Skeletal Injuries"

Thomas A. Kelley, Jr., M.D., Louisville

12:00 noon Luncheon

"Initial Care of Multiple Injured Patients"

(Pre-hospital and Emergency Room

Sequence of Management)

Janice A. Mendelson, M.D.,

San Antonio, Texas

Afternoon Session

2:00 p.m. Manual Skills Workshops

1. Basic Life Support CPR (advance registration required)

2. Anti-Shock Air Pants — *James H. Shewmaker Jr., EMT-P, instructor*

3. Tracheal & Esophageal Intubation — *Dora Little, R.N., instructor*

(alternate #2 and #3 workshops after 3:00 break)

3:00 p.m. Break

3:20 p.m. Return to workshops and begin ambulance competition

Wednesday, June 10, 1981

Morning Session

8:00 a.m. Registration

8:45 a.m. Opening Remarks

Moderator: William Stephen Aaron, M.D., Louisville

9:00 a.m. "Acetaminophen Poisoning"

Robert N. McLeod, M.D., Somerset

9:30 a.m. "Acute Psychiatric Disorders"

Pat Laceyfield, R.N., Louisville

10:00 a.m. Coffee Break

10:20 a.m. "Convulsive Disorders"

Dennis O'Keefe, M.D., Bowling Green

10:50 a.m. "Dosage of Commonly Used Drugs"

John T. Algren, M.D., Louisville

11:20 a.m. "Asthma"

Thomas L. Heavern, Jr., M.D.,

Highland Heights

12:00 noon Luncheon

"Protecting the Evidence"

George R. Nichols, II, M.D., Louisville

Afternoon Session

2:00 p.m. Manual Skills Workshops

1. Basic Life Support CPR (continuation from Tuesday afternoon)

2. Recertification in Basic Life Support CPR (advance registration required)

3. "Stabilization & Transportation of Spine Injuries"

June C. Willis, RN, CCRN, Instructor

Charlotte A. DeLise, RN, CEN, Instructor

4. "Immediate Care & Preparation of Long Bone Injuries"

C. H. Hood, M.D., LTC, MC/FS, Ft.

Knox, Instructor

(alternate workshops #3 & #4 after 3:00 break)



3:00 p.m. Break

3:20 p.m. Return to Workshops

Thursday, June 11, 1981

Morning Session

8:00 a.m. Registration

8:50 a.m. Opening Remarks

Moderator: Cheryl Westbay, R.N., Louisville

9:00 a.m. "Cardiovascular Emergencies"

Allan M. Lansing, M.D., Louisville

9:30 a.m. "Diabetic Emergencies"

Theodore N. Lynch, M.D., Louisville

10:00 a.m. Coffee Break

10:20 a.m. "OB-GYN Emergencies" (Toxic Shock Syndrome)

Martha Keeney Heyburn, M.D., Louisville

10:50 a.m. "Drug Abuse"

Salvatore J. Vicario, M.D., Louisville

11:20 a.m. "Child Abuse"

Mary A. Smith, M.D., Louisville

12:00 noon Leave for Churchill Downs

Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Orson L. Arvin, M.D., Mount Vernon
 Paul B. Barton, M.D., Corbin
 Henry R. Bell, M.D., Elkton
 Lyle H. Boyea, M.D., Louisville
 Manuel L. Brown, Jr., M.D., Louisville
 Jerry Marcus, Bryson, M.D., Harlan
 Clyde A. Burgess, M.D., Ashland
 James R. Cundiff, M.D., Shepherdsville
 James L. Ferrell, M.D., Paris
 Charles D. Franks, M.D., Morehead
 Larry P. Griffin, M.D., Louisville
 German Gutierrez, M.D., Paducah

William F. Hawn, M.D., Louisville
 Yung-Poe Lee, M.D., Harlan
 Carl W. Liebert, M.D., Louisville
 Walter L. O'Nan, M.D., Henderson
 Samuel A. Overstreet, M.D., Louisville
 John A. L. Patton, M.D., Whitley City
 Patricia A. M. Quinby, M.D., Louisville
 Frank Randall, M.D., Lexington
 James E. Redmon, M.D., Louisville
 Pamela J. Webb, M.D., Lexington
 Thomas T. Wells, M.D., Glasgow

Harry C. Shirkey, M.D., was awarded an honor citation "in grateful recognition of sustained interest in and meritorious contributions to the professional and scientific endeavors" of the Pharmacopeial Convention for the past 27 years, by the USPC Board of Trustees on Jan. 17, 1981.

Doctor Shirkey has been actively involved in the preparation of the United States pharmacopeia since 1953 and the National Formulary since 1960. He maintains a private practice in pediatrics in Highland Heights, Kentucky, and is Clinical Professor of Pediatrics at the University of Cincinnati and Adjunct Professor in the Division of Hospital Pharmacy at the University of Kentucky.

IN MEMORIAM

**Charles Baron, M.D.
1903-1981
Covington**

Charles Baron, M.D., Covington, died February 25, 1981, at his home. He was a psychiatrist in the northern Kentucky area for 47 years. Doctor Baron was a 1930 graduate of the Rush Medical College, University of Chicago. He was a member of the Campbell-Kenton County Medical Society, the AMA and the American Academy of General Practice. Doctor Baron was a member of the KMA for 38 years and the author of numerous publications.

KMA Washington Dinner

The annual KMA Washington Dinner will be held on June 22-23 at the Capital Hilton Hotel. There will be a briefing by the AMA Washington Office on June 22, with Congressional visitations on June 23, concluding with a banquet that evening. Invitations are being sent from the Headquarters office.

PRACTICE OPPORTUNITIES

in Western Kentucky

- Internal Medicine
- OB/GYN
- Ophthalmology

For further information contact:

Norma J. Knott
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Management Corp.
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Suite 300
Atlanta, GA 30339
404/955-5382

Avil McKinney Succeeds Donald Giffen as President of BCBS

Donald W. Giffen, president of Blue Cross and Blue Shield of Kentucky, Inc., (BCBS) has announced his retirement and the election of Avil L. McKinney as president-elect. Mr. McKinney is scheduled to become president Oct. 1, 1981 when Mr. Giffen retires.

President-elect McKinney joined BCBS in 1953 and has held the positions of district director of marketing, director of Professional and Public Relations, vice president and executive vice president.

President Donald W. Giffen joined BCBS in 1946 as office manager. He has held positions of director of Internal Operations, vice president and executive vice president. He was elected president of the corporation in 1976.

Mr. Giffen has served on the Kentucky Medical Association's Health Care Cost Commission and is a recipient of the KMA's award to a layperson for outstanding service in the field of health.

Nominations Being Accepted For Three Annual KMA Awards

Nominations are being accepted for three awards which are presented each year at the KMA Annual Meeting to outstanding physicians and lay people.

Nominees for the Educational Achievement Award are chosen from members of the Commonwealth who have made a significant achievement in medical or medically related education in areas of research, clinical application of medical practice and/or patient education. Nominations must be received in the Headquarters Office by July 1. Recipients are chosen by the Continuing Medical Education Committee.

The Distinguished Service Award is presented each year to a physician in the state who has contributed to organized medicine or individual medical service, community health or civic betterment and medical research or distinguished voluntary military service. The nominee may qualify on any one or a combination of these points.

The Kentucky Medical Association Award is presented to an outstanding lay person in honor of his or her outstanding accomplishments in the field of public health and/or medical care. July 15 is the deadline for receiving nominations for the Distinguished Service Award and the Kentucky Medical Association Award. Recipients will be chosen by the Awards Committee.

Nominee material should include background and historical information about the nominee as well as justification for the nomination.

The Jefferson County Medical Society has moved to the Community Health Building on the corner of 1st and Chestnut Streets. The new address is 101 West Chestnut St., Louisville, KY 40202. Phone (502) 589-2001.

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci

Branchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)

Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*

Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

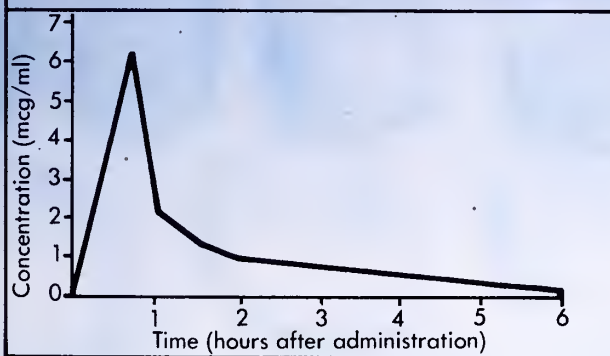
*Dosage should not result in a dose higher than that for adults.
†depending on severity

Wyeth Laboratories
Philadelphia, Pa 19101

Half the dose
is absorbed in 9 minutes!
compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{1/2}$ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories • Philadelphia, Pa 19101



Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

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Blue Shield Reaffirms Policy on Assignment of UCR Payment's to Nonparticipating Physicians

The 1979 KMA House of Delegates adopted the policy of urging carriers to honor voluntary patient requests to assign benefit payments, under usual, customary or reasonable programs, to the attending physician regardless of whether or not the attending physician had signed a participating agreement.

The matter was referred to the KMA Committee on Medical Insurance and Prepayment Plans. Because the only plan of this type currently offered in Kentucky is through Kentucky Blue Cross and Blue Shield, meetings were held with Company representatives, followed by a formal request to the Board of Blue Cross and Blue Shield to review its policy in light of the House action.

The Committee on Insurance and Prepayment Plans feels that all appropriate efforts to affect a change in Kentucky Blue Cross and Blue Shield's policy have been made and asked the KMA Executive Committee to make the membership aware of those efforts and of Blue Shield's philosophy with regard to its position, which is contained in the following letter from Mr. Donald W. Giffen, President, Blue Cross, Blue Shield, and Delta Dental of Kentucky.

Dwight L. Blackburn, M.D., Chairman
Board of Trustees
Kentucky Medical Association
3532 Ephraim McDowell Drive

Dear Doctor Blackburn:

At a meeting of the Executive Committee of the Blue Cross and Blue Shield Board on September 25, 1980, the corporate policy relative to not honoring assignment of benefits from non-participating physicians for Blue Shield's Usual, Customary and Reasonable Program was thoroughly discussed. The Board reaffirmed the policy established in 1976 that assignments from non-participating physicians would not be honored. This decision was made after review and full discussion of the following:

1. Participation in the Usual, Customary and Reasonable Program is voluntary.
2. The vast majority of physicians practicing medicine in Kentucky (3,360 physicians representing 83%) participate in the Usual, Customary and Reasonable Program. The number continues to grow as over 300 physicians signed participating agreements during 1979.
3. Participating physicians are committed to the peer review process and to the allowances made as

payment in full; whereas, non-participating physicians are not committed to accepting peer review or accepting UCR allowances as payment in full.

4. The Certificates of Membership, on file with the Department of Insurance, state that payment will be made directly to the subscriber when services are rendered by a non-participating physician.
5. Reimbursement discrimination does not exist in the administration of the Usual, Customary and Reasonable Program. The same guidelines in determining allowances for covered services are used for both participating and non-participating physicians.
6. There are two court cases involving assignment of benefits; and in both instances, the court ruled in favor of the local Blue Shield Plan.
7. Blue Cross and Blue Shield of Kentucky has a Consumer Advisory Committee composed of consumer representatives throughout the state who regularly review our policies and procedures in the interest of the public. This committee has strongly recommended that Blue Cross and Blue Shield of Kentucky not honor assignments of benefits from non-participating physicians.
8. It would be unfair to the 83% of physicians who do participate. The participating physician is committed to a process of peer review. It would not be fair to make the allowance to the non-participating physician that does not commit to the program and administrative guidelines.
9. Our ability to deliver the Usual, Customary and Reasonable Program would be severely hampered in terms of benefit structure, predictability of rates, administrative procedures, etc.

Our administration of the Usual, Customary and Reasonable Program since the beginning has demonstrated a strong position both in the marketplace and in the medical community. This is evidenced by the growing enrollment and the increasing number of participating physicians in the Usual, Customary and Reasonable Program.

If you have any questions or if you need additional information, please let me know.

Sincerely,

Donald W. Giffen
President

DWG:jw

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Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)® , please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to focal pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10.



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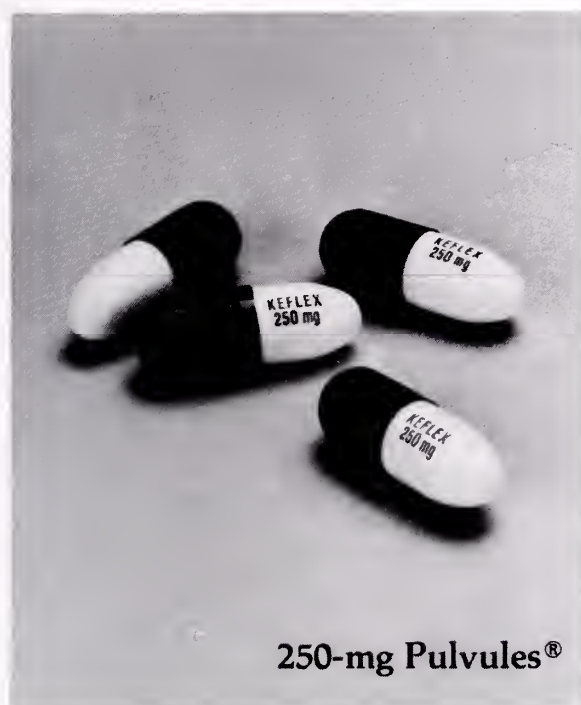
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Acute pain is no laughing matter.

The first prescription for the first days of acute pain **Empirin® \bar{c} Codeine #3**


Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). 

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin \bar{c} Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin \bar{c} Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with... two tablets of Empirin \bar{c} Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming). 

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.



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“Basics in Sports Medicine”
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All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

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Headquarter's Activity

MAY

- 12 Journal Editors, Louisville
- 13 Membership Committee, Louisville
- 14 RKMSF Review Committee, Louisville
- 20 Paramedic Advisory Committee, Louisville
- 21 Board of Medical Licensure, Louisville
- 25 Memorial Day observed, Office closed
- 28 RKMSF Executive Committee, Louisville
- 28 RKMSF Board, Louisville

JUNE

- 7-11 AMA Annual Meeting, Chicago
- 9-11 Emergency Medical Care Seminar, Louisville
- 9 Journal Editors, Louisville
- 22-23 KMA Washington Dinner, Washington, D.C.

JULY

- 9 CME Committee
- 14 Journal Editors, Louisville
- 23 Board of Licensure, Louisville

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Condition of "Nerves"
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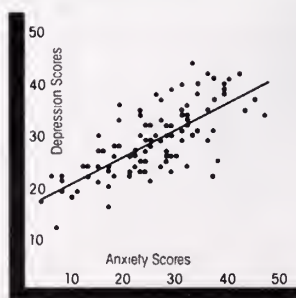
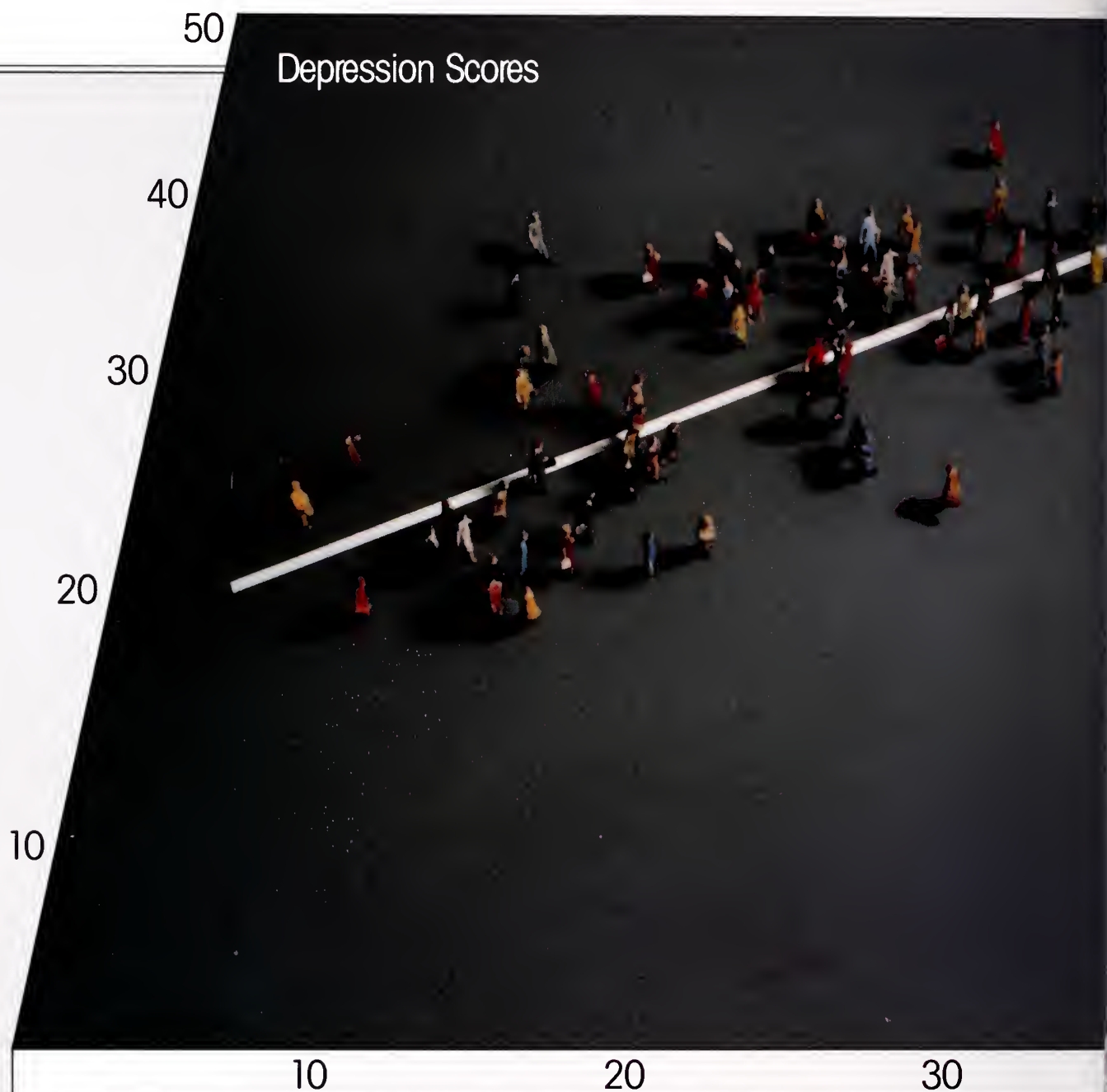
June 1981
Volume 79
Number 6

The Journal Of The Kentucky Medical Association

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JUN 25 1981

FOR THE 7 OF 10 NONPSYCHOTIC



Clear correlation between anxiety and depression³

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

³Adapted from Cloghorne, J. The anxiety-depression syndrome. *Psychosomatics* 11:438-441, Sept-Oct 1970.

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS^{1,2}

Most depressed patients are also anxious. . .

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.^{1,2} One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.³ As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.⁴ Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.⁵ Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jorvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. 2. Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry* 35:1359-1365, 1978. 3. Cloghorm J: The anxiety-depression syndrome. *Psychosomatics* 11:438-441, 1970. 4. The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry* 137:1163-1172, 1980. 5. Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology* 61:217-225, 1979.

Anxiety Scores

50

In moderate depression and anxiety

Limbitrol®[®]

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquillizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated. Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extropyrimal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

Postgraduate Opportunities

JUNE

- 3-5 Update in Ob-Gyn, Hyatt Regency, Lexington*
- 9-11 Emergency Medical Care Seminar, Executive West, Louisville
- 14-19 Sixth Annual Family Medicine Review, Hyatt Regency, Louisville**

JULY

- 22 Basics in Sports Medicine, KenBar Resort, Gilbertsville, KY
- 31-2 E.N.T. Symposium for the Family Physician, The Lodge, Vail, Colorado***

AUGUST

- 10-11 Antibiotic Review-1981, Sheraton Washington Hotel, Washington, D.C.
- 21-22 5th Annual Bethesda Hospital Extra-Capsular Cataract & Implant Seminar, The Westin Hotel, Fountain Square, Cincinnati, OH

SEPTEMBER

- 12 Using Laser in Glaucoma, Vernon Manor Hotel, Cincinnati, OH
- 22-24 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville, KY
- 25-27 Second National Seminar on Community Cancer Care, Hyatt Regency, Indianapolis, IN
- 29-3 5th District Meeting of the American College of Obstetricians and Gynecologists, Hyatt Regency, Lexington

OCTOBER

- 17 3rd Annual Physicians Recruitment Fair, Ramada Inn/Bluegrass Convention Center, Louisville

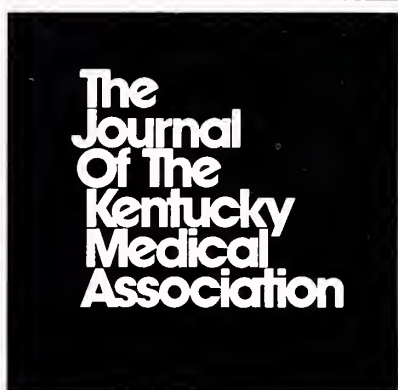
DECEMBER

- 10-12 Current Concepts in Cancer Therapy, St. Louis, MO

*Frank R. Lemon, M. D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329

***Lisa Lee, ENT Symposium, 950 E. Harvard, #500, Denver, CO 80210 (303) 744-1961



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SCIENTIFIC ARTICLES

The Condition of "Nerves"

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EUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and other information, FDA has classified the indications as follows:

“Possibly” effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a “crutch” may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts. To patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow CNS stimulants e.g., caffeine, Meclazol or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions. Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have also been reported.

More severe cases, observed only very rarely may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and resumption of therapy should not be attempted. Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdose with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSEAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine, although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume), Cheyne-Stokes respiration, cyanosis, extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity (jaundice, coagulation defects, hypoglycemia, encephalopathy, coma and death may follow. Renal failure due to tubular necrosis, and myocardialopathy have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone, naltrexone, and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237 2406-2407 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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PRESIDENT'S PAGE



MOST physicians rejoiced in the wake of last November's election in that they sensed a "rebirth of freedom." They saw an opportunity to change opinions toward greater reliance on individual initiative and voluntary cooperation, rather than toward the other extreme of total collectivism. The past four decades resulted in a growing recognition of the dangers of big government and a growing dissatisfaction with the policies that had followed. The past half-century produced a growth in government at all levels with its resultant transfer of power and control from local government to central government with central control. Central big government has undertaken the task of taking from some to give to others in the name of security, justice and equality. Each new government policy has been set up to regulate and control pursuits in all phases of our private personal business and professional life.

Ironically, while we rejoice in our hopes for a "rebirth of freedom," new threats to medicine loom strong on the horizon. Shortly, we must address a new legislative session for the Commonwealth of Kentucky. This next session will see Kentucky physicians again meet a multitude of legislative efforts to control, manipulate and regulate physicians and the health care system. The army of health planners, multitudes of social reformers and other political engineers trained in the past decade are still present, more experienced and highly motivated. These reformers will once again attempt to exercise influence and control, hoping to obtain by legislative means, what they failed to achieve at the ballot box.

The next legislative session will again see medicine confronted with attempts by the chiropractors, podiatrists, physician assistants, nurse practitioners, labor, health planners, bureaucrats and others to obtain regulatory and legislative inroads into the practice and control of medicine. Medicine must be prepared for these threats to our freedom, and come forth with a positive, direct and active leadership role instead of the negative, reactive role of the past. We cannot be lulled into a reclusive attitude by our recent victories, but must be reminded that constant vigilance is the price of freedom. We must maintain our alert to repel invasion of our freedom by legislative and regulatory mechanisms promulgated by the economic and social reformers through political means. The greatest danger to our continued freedom in the practice of medicine may well lurk in the insidious efforts of men of zeal, well meaning, but without understanding.

Our objective of a continued free independent practice of medicine will prevail only if informed, knowledgeable physicians are willing to maintain their commitments to sound, basic principles, otherwise, we will continue to speed down the road to serfdom.

Frank R. Pitzer, M.D.
KMA President

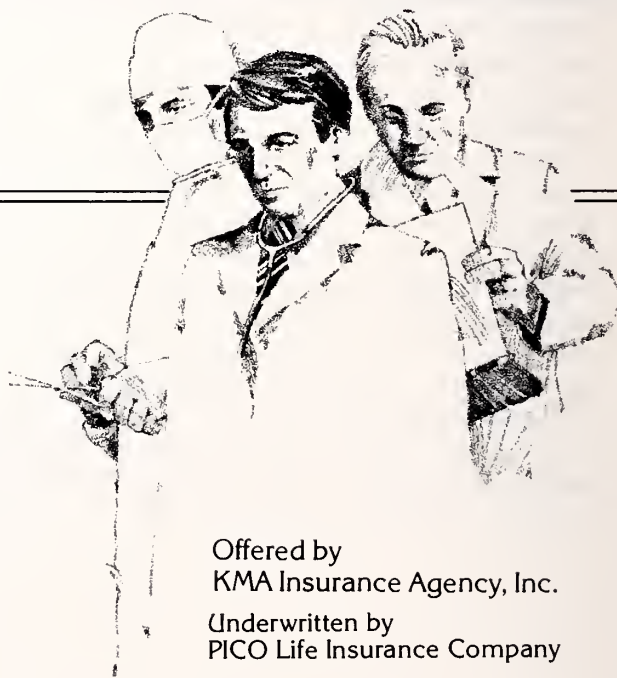
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The Journal Of The Kentucky Medical Association

June 1981 Volume 79 Number 6

The Condition of "Nerves"

ARNOLD M. LUDWIG, M.D. AND REBECCA L. FORRESTER, B.S.

Systematic interview information and responses on the Cornell Medical Index on 37 individuals suffering from "nerves" were used to compose a clinical profile of this condition. From this data, it appears that the condition of "nerves" constitutes a relatively unique clinical syndrome, encompassing far more than depression, anxiety, neuresthenia, hypochondriasis and certain personality features. Also, given the socio-cultural setting, the syndrome seems to serve certain adaptive functions for the afflicted.

ANY clinician working in Appalachia is familiar with the complaint of "nerves." This common complaint tends to be used in several ways: as an independent condition, as a complication of another problem, or as an etiological explanation for other symptomatology.¹ Surprisingly, this seemingly ambiguous complaint possesses substantial social and medical communication value among its users. Family members and neighbors nod their heads knowingly and sympathetically when the patient indicates that he (or she) is suffering from this socially acceptable malady. Physicians themselves, when unable to make a specific diagnosis, readily resort to this catch-all label to account for a plethora of symptoms (eg, "Nothing serious to be worried about, Mary Lou . . . it's just your nerves.").

Despite its prevalence, hardly any investigative studies or systematic clinical reports have been devoted to the condition of "nerves." Just what is the clinical nature of this condition? Diagnostically, are the somatic symptoms reported a reflection of an underlying depressive or anxiety neurosis, or hypochondriasis, psychophysiological reactions or neuresthenia? Is usage of the term "nerves" so vague, imprecise, ambiguous or inconsistent that it holds little clinical value or validity? Or is "nerves" a relatively unique psychiatric syndrome, consisting of a constellation of symptomatology different from other traditional diagnoses?

Clinical Characteristics

In order to address these issues, a sample of 37 individuals, predominantly rural Eastern Kentuckians, claiming disability related to "nerves,"

From the Department of Psychiatry, University of Kentucky College of Medicine, Lexington, KY 40536

NERVES—Ludwig and Forrester

APPENDIX I DEMOGRAPHIC CHARACTERISTICS*

	<u>MALE</u> (N = 15)	<u>FEMALE</u> (N = 22)	<u>COMBINED</u> (N = 37)
Age (years)	38.6 ± 16.4	44.2 ± 17.6	40.8 ± 12.9
Educational Level (years)	6.7 ± 3.2	8.0 ± 3.7	7.2 ± 3.5
Kent Est. IQ	83.5 ± 13.2	76.5 ± 14.4	79.5 ± 14.2

* Means & Standard Deviations

was studied. Average age, education level, and intelligence estimate, as measured by the Kent Emergency Scale,² are provided in Appendix I. The cultural, economic and psychological backgrounds of these individuals may be inferred from several classical texts on Appalachia.³⁻⁵ The information used for this preliminary study was obtained through systematic psychiatric interviews and mental status examinations, as well as administration of the Cornell Medical Index.⁶ Individual items endorsed by over 65% of the sample were arbitrarily regarded as typical of the sample (see Appendix II). Based on this information, a fairly consistent clinical picture of characteristic symptomatology associated with “nerves” begins to emerge.

Sense of Inadequacy and Non-Assertiveness

Typically, patients complaining of “nerves” tend to be fearful and non-assertive. They are plagued by feelings of inadequacy and uncertainty about judgment. When they undertake tasks, they have difficulty making decisions, proceed slowly for fear of making errors, get confused easily, and shake and quiver when approached by an authority figure or superior.

Hapless But Not Completely Hopeless

Although they fret and worry constantly, admittedly about the least little thing, and often feel miserable and blue, they do not display the pervasive gloominess of seriously depressed patients. Their lot may seem hopeless and harsh, but they do admit to occasional good times. Surprisingly, they rarely feel the desire to end it all—at least by their own report—or even to escape from their situation. It is not themselves or their

circumstances from which they seek to get away but from their “nerves” or “being sick.”

The Absence of Social Protest

Despite their poverty and social entrapment, these individuals show surprisingly little overt resentment or anger. They tend to be non-suspicious, gullible and trusting, and accept what life has to offer, “making do” as best they can. There is little evidence of acting-out behavior as a means of coping with their lot. They seldom do things on impulse, rarely get in trouble with the law, drink excessively or take drugs.

Easy Startle Response

Claiming a lowered threshold to stimuli, these “high-strung,” jumpy individuals are easily startled by noises, sudden movements or shouting. Almost any unexpected, strong stimulus or unanticipated, stressful occurrence will cause them to shake, tremble, feel weak or just “go all to pieces.”

Somatic Non-Specificity

Specific, localized, somatic complaints are uncommon. Mostly, they believe their bodies to be in bad shape or experience pains all over. They tire easily, have difficulty falling asleep and sleeping soundly, have “queer” feelings in their head, and get out of breath easily (eg, “I smother and choke a lot”). Heart and chest complaints are vague (eg, “I got a hurtin over my chest,” “my heart feels like it’s going to jump right out”), and gastrointestinal symptoms mostly pertain to upset stomachs (eg, “my stomach feels jittery inside”), nausea or bowels working badly. The most com-

NERVES—Ludwig and Forrester

APPENDIX II CORNELL MEDICAL INDEX ITEMS

Percent Endorsement

70%	Do you frequently feel faint?	65%	Does your heart often race like mad for no good reason?
78%	Do you have hot or cold spells?	70%	Do you have difficulty in breathing?
68%	Do strange people or places make you afraid?	100%	Do you often shake or tremble?
78%	Do you often have spells of dizziness?	76%	Are you often awakened out of your sleep by frightening dreams?
81%	Do you get all nervous and shaky when approached by a superior?	70%	Do you always become scared at sudden movements or noises at night?
78%	Do you feel nervous or dizzy right at this moment?	86%	Do sudden noises make you jump and shake badly?
73%	Do you always get orders and directions wrong?	76%	Do you tremble or feel weak every time some one shouts at you?
89%	Does your thinking become completely confused when you have to do things quickly?	65%	Are you keyed up and jittery every single moment?
76%	Do you always sweat and tremble a lot during inspections or examinations?	65%	Do you suffer badly from frequent severe headaches?
86%	Do you have to do things very slowly in order to be sure you are doing them right?	65%	Do pains in the back make it hard for you to keep up with your work?
84%	Is it always difficult for you to make up your mind?	72%	Is your body always in very bad condition?
86%	Do you often feel miserable and blue?	70%	Do severe pains and aches make it impossible for you to perform your duties?
70%	Does life usually look entirely hopeless?	95%	Do you get spells of exhaustion or fatigue?
95%	Are you considered a nervous person?	70%	Do you frequently get up tired in the morning?
70%	Do you have any unusual fears?	65%	Does pressure or pain in the head make it hard for you to perform your duties?
95%	Do you often have difficulty in falling asleep or staying asleep?	65%	Are you always in poor health and unhappy?
97%	Does every little thing get on your nerves and wear you out?	70%	Do you often suffer from an upset stomach?
92%	Does worrying continually get you down?	70%	Do you frequently get attacks of nausea (sick to your stomach)?
84%	Do you get out of breath long before anyone else?	81%	Are you easily upset or irritated?
70%	Do you have pains in the heart or chest?	76%	Do you go all to pieces if you don't constantly control yourself?

monly reported symptoms pertain to faintness, dizziness, hot and cold spells, sweating and trembling. Typically, they describe the trembling as being inside and not observable to others. As a result of all these symptoms, they profess varying degrees of incapacitation and distress (eg, "My nerves are just fit to kill me," "My nerves are so bad I can't do nothing," or "I'm nervous all the time like I'm shaking out of my shell").

World View

Though venturing on more speculative ground, we have come to believe that a certain

state of mind or way of life—constituting the individual's *weltanschauung* or world view—represent necessary but not sufficient conditions for the development of "nerves." Though comprehensive descriptions of the Appalachian life style may be found elsewhere, several features are worthy of special mention.

For most of the study sample, certain adjectives, such as "constricted," "impoverished," "restricted," "shrunk," "simplified," "isolated," and "predictable," seem to characterize their lifestyle or approach to life. Their social network is incredibly limited. Except for inter-

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actions with immediate family and proximate neighbors, who are generally supportive of their nervous condition, or occasional visits to church, they have hardly any sustained contact with others. Close friendships and social life are virtually non-existent. Their range of interests is restricted outside of work or chores, and active hobbies are rare. Mostly, individuals putter or lay around the house, watching television or doing some little thing or other, to fill up the day. Familiarity and predictability, with the avoidance of decision-making, interpersonal stresses, or strangeness—since most complain about “trouble concentrating” or “figuring things out”—tend to shape their daily routines.

Commentary

As the foregoing discussion should indicate, the condition of “nerves” appears to represent a relatively discrete, clinical syndrome containing clusters of symptomatology which are both similar and distinct from those found in traditional psychiatric diagnoses. Low-grade depression without anguish, chronic anxiety without panic, and an old-fashioned neuresthenia intermixed with hypochondriasis are superimposed on personalities with passive-dependent, depressive, inadequate and asocial features. A propensity for exaggerated illness behavior and the development of a compensation neurosis may serve as an integrating cement for all this symptomatology. The condition of “nerves,” it then seems, represents all of these symptom complexes but no one in particular.

Little wonder that some shorthand terminology or label has had to be devised or evolved to cover this broad spectrum of symptoms. For a relatively non-verbal, rural culture, in which individuals have difficulty with high level symbolization and abstraction, the label “nerves” seems admirably suited for communication purposes. Not only does the label pertain to a plethora of symptomatology, well known within the culture, but also implies a type of constitutional or somatic etiology, residing in the very being of these people—not in their economic, cultural, educational, vocational, interpersonal or psychological circumstances; something they could do little about anyway.

In a sense, the condition of “nerves” represents a convenient, cultural conspiracy of silence about potentially incriminating causes. Except for occasional symptomatic relief from their malady by a myriad of medications, no one is blamed, no one is held accountable, and nothing really can be done to “cure” the basic ailment. As long as the problem is “only nerves,” society need not respond and the individual need not grapple with the scary implications of an accurate, penetrating answer to the question, “Okay, now I want you to tell me what’s really bothering you.”

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Open Heart Surgery in Patients Over 70 Years of Age: Mortality and Morbidity

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As the result of broader indications and improved surgical technique, an increasing number of elderly patients are now candidates for open-heart surgery. The purpose of this study is to define the operative risk in this category of patients.

Material and Method

One hundred and twenty-eight open-heart procedures were performed in patients 70 years or older between 1978 (56 operations) and 1979 (72 operations). They include 83 coronary bypass grafting procedures, two coronary bypass and repair of post-myocardial ventricular septal defects, 25 valve replacements, 17 combined valve replacement and coronary bypasses, and one operation for congenital heart defect (atrial septal defect with partial anomalous pulmonary venous return).

The preoperative data for all patients are presented in Table 1-3. For 1978 and 1979 respectively, the mean patient age was 73.1 (range 70-84) and 73.6 (range 70-84) and the male/female 1.2/1 and 2.4/1 (Table 1). The incidence of risk factors associated with older age is shown in Table 2, the list being headed by previous myocardial infarction (half of all patients) and hypertension and congestive heart failure (each in about a third of the patients). As expected, patients receiving coronary grafts had a higher incidence of pre-operative myocardial infarction, while patients operated on for valve problems had more frequent congestive heart failure. Chronic obstructive pulmonary disease, diabetes, a histo-

ry of previous stroke or previous vascular surgery were less frequent, but nevertheless seen in a significant number of patients. Data reflecting the patients preoperative renal status are presented in Table 3. Mild elevation of the BUN and of the serum creatinine were respectively present in 21% and 34.3% of all patients.

The indication for coronary bypass surgery was incapacitating angina not responding to medical treatment. Congestive heart failure was not considered a contraindication to coronary revascularization if it was associated with significant angina. Half of the patients had significantly decreased left ventricular function and patients with ejection fraction as low as 15% were routinely accepted for surgery. There were no instances of left ventricular aneurysm. Two patients had post-myocardial ventricular septal defects: one was operated acutely because of deteriorating condition secondary to left ventricular failure; the other underwent elective repair more than six weeks after occurrence of the VSD. Single, double and triple vessel disease were angiographically present in four, eight and 70 patients, respectively. Left main coronary stenosis, isolated or in combination with other lesions was diagnosed in 23 patients.

The indications for isolated valve replacement and for combined valve and coronary bypass procedures are summarized in Table 4. The pre-

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TABLE 1: AGE/SEX DISTRIBUTION

	MEAN AGE (Yrs) (Range)	1978 # MALE	# FEMALE	MEAN AGE (Yrs) (Range)	1979 # MALE	# FEMALE
C8G	72.9 (70-84)	20	17	73 (70-84)	30	16
CBG & VSD				79 (76-83)	2	
VALVE	73.7 (71-78)	6	8	73.9 (70-82)	8	3
VALVE & C8G	73.6 (70-78)	4		75 (70-80)	11	2
CONG.	70	1				
	73.1 70-84)	31	25	73.6 (70-84)	51	21

LEGEND: C8G=Coronary Bypass Graft
VSD=Ventricular Septal Defect
Cong=Congenital Heart Defect
Valve=Valve Replacement

TABLE 2: PREOPERATIVE RISK FACTORS

	Previous Myocardial Infarction	Hypertension	Congestive Heart Failure	COPD	Diabetes	Previous Vascular Surgery	Previous Stroke
83 C8G	53	33	10	7	7	5	2
2 CBG & VSD	2	1	2				
25 Valve	2	5	19	2		1	1
17 Valve & C8G	5	4	8	6	1		
1 Cong.							
128	62	43	39	15	8	6	3

LEGEND: COPD=Chronic Obstructive Pulmonary Disease
C8G=Coronary Bypass Graft
Cong.=Congenital Heart Defect
VSD=Ventricular Septal Defect
Valve=Valve Replacement

dominant lesions were aortic and mitral valve stenoses. For valve replacement, the indication was a functional state Class III or IV (New York Heart Association). Coronary revascularization was added for patients with coronary stenosis who had angina, or for those without angina who had critical stenosis of a major coronary vessel. Patients with aortic valve replacement received an average of 1.9 grafts and those with mitral valve replacement an average of 1.5 grafts.

The operations were performed through a mid-sternotomy incision and with aortic cannulation. A single right atrial cannula was used for coronary bypass operations and separate caval cannulation

for all other procedures. Cardiopulmonary bypass was conducted with moderate systemic hypothermia to 30 degrees, using a disposable bubble oxygenator primed with 5% dextrose in water and Ringers lactate each in equal volume. Five hundred ml of heparinized blood was added only for multiple coronary bypass, multiple valve replacement or combined valve and bypass procedures. Blood was not used for single coronary bypass, isolated valve replacement or atrial septal defect closure. Myocardial protection was obtained by the use of cold potassium cardioplegic solution. For most patients, 500 ml were initially injected in the aortic root, supplemented later by repeated

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TABLE 3: PREOPERATIVE RENAL TESTS

	Preop. BUN (mg%) Mean (range)	No. (%) patients with elevated values	Preop. creatinine (mg%) Mean (range)	No. (%) patients with elevated values
83 CBG	18.7(4-44)	8	1.25(0.7-2.7)	24
2 CBG & VSD	55.0(54-56)	2	2.35(2.3-2.4)	2
25 Valve	26.0(4-39)	10	1.30(0.8-1.8)	9
17 Valve & CBG	29.2(5-44)	7	1.40(1.0-2.0)	9
1 Cong.	17.0		1.10	
128	22.0(4-56)	27(21%)	1.29(0.7-2.4)	44(34.3%)

LEGEND: BUN=Blood Urea Nitrogen
CBG=Coronary Bypass Graft
Cong.=Congenital Heart Defect
VSD=Ventricular Septal Defect
Valve=Valve Replacement

TABLE 4: INDICATIONS FOR VALVE REPLACEMENT AND COMBINED OPERATIONS

OPERATION	NO OF PATIENTS	INDICATIONS	
Aortic valve replacement	12	Aortic Stenosis:	10
		Aortic regurgitation:	1
		Aortic stenosis and regurgitation:	1
Mitral valve replacement	10	Mitral stenosis:	6
		Mitral regurgitation:	4
Aortic and Mitral valve replacement	2	Aortic stenosis:	2
		Aortic regurgitation:	1
		Mitral stenosis:	1
		Mitral regurgitation:	1
Mitral and tricuspid valve replacement	1	Mitral regurgitation:	1
		Tricuspid regurgitation:	1
Aortic valve replacement and coronary grafts:	10	Aortic stenosis:	10
CBGx1: 3		CAD:	10
CBGx2: 5			
CBGx3: 2			
Mitral valve replacement and coronary grafts:	7	Mitral stenosis:	2
CBGx1: 3		Mitral regurgitation:	4
CBGx2: 4		Mitral stenosis and regurgitation:	1
		CAD:	7

LEGEND: CBG=Coronary Bypass Graft
CAD=Coronary Artery Disease

bolus of 100 ml as needed. The solution was injected directly into the left coronary artery orifice in patients with aortic regurgitation and in a few patients with aortic stenosis. Topical cooling with ice cold saline was frequently, but not routinely added.

For coronary bypass operations, all distal anastomoses were performed first during a single period of aortic clamping. The proximal anastomoses were done with the help of a partial aortic clamp during rewarming and with the heart beating. Left atrial venting was rarely used. Long

saphenous veins harvested from the thigh were used whenever possible, arm veins being our secondary choice.

Isolated valve replacement was conducted during a single period of aortic clamping. For combined procedures the distal coronary anastomoses was performed first, followed by valve replacement, all during the same aortic cross-clamping period. The proximal anastomoses were then done during the rewarming and with a beating heart. Carpentier-Edward porcine prostheses were used for all mitral, tricuspid and for most

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TABLE 5: OPERATIVE MORTALITY: ALL PATIENTS

	1978			1979			1978&1979		
	# Patients	# Deaths	Operative Mortality %	# Patients	# Deaths	Operative Mortality %	# Patients	# Deaths	Operative Mortality %
CBG	37	2	5.4	46	1	2.2	83	3	3.6
CBG & VSD				2	1	50.0	2	1	50.0
VALVE	14	0	0.0	11	0	0.0	25	0	0.0
VALVE & CBG	4	0	0.0	13	1	7.6	17	1	5.8
CONG	1	0	0.0				1	0	0.0
TOTAL ALL OPERATIONS	56	2	3.5	72	3	4.1	128	5	3.9
TOTAL ELECTIVE OPERATIONS	56	2	3.5	71	2	2.8	127	4	3.1

LEGEND: CBG=Coronary Bypass Graft
VSD=Ventricular Septal Defect
Cong=Congenital Heart Disease
Valve=Valve Replacement

TABLE 6: OPERATIVE MORTALITY AND DATA FOR CORONARY BYPASS PROCEDURES

	# Patients	# Left Ven- tricular Dysfunction	# Left Main Lesion	# (%) Deaths	CPB Time (min)	Aortic Clamp Time (min)	Operative Blood Loss (ml)	Operative Blood re- placement (ml)
CBGx1	4	1	0	0 (0.0)	38.5	14.5	443	0
CBGx2	24	13	6	2 (8.3)	58.5	26.5	469	468
CBGx3	41	21	11	1 (2.4)	78.5	39.0	523	667
CBGx4	14	8	6	0 (0.0)	94.5	53.0	667	490
TOTAL	83	43	23	3 (3.6)				

LEGEND: CBG=Coronary Bypass Graft
CPB=Cardiopulmonary Bypass

aortic valve replacements. The Bjork-Shiley prosthesis was used for aortic valve replacement in three patients with a small aortic annulus.

Most patients were extubated in the recovery room from three to six hours postoperatively. Respiratory support was continued for a longer period of time in patients with very poor left ventricular function, with high pulmonary artery pressure or in other selected instances. The patients were kept in the intensive care unit for two to three days on the average, transferred to a general floor thereafter, and discharged from the hospital nine to 10 days after the operation. Post-operative medical management included digitalization and use of diuretics. Arrhythmias were treated on an individual basis. Anticoagulation with Coumadin, started on the third postoperative day, was used for three months in all patients

with valve replacement. It was used indefinitely in patients receiving Bjork-Shiley prosthesis. Unless contraindicated, long term anticoagulation was recommended in patients receiving porcine prostheses who had atrial fibrillation or previous left atrial thrombus.

Results

The overall hospital mortality was 3.9%. For elective operations (excluding one patient with post myocardial VSD), there were four deaths in 127 patients, for a hospital mortality of 3.1%. The mortality was comparable for 1978 and 1979 (Table 5).

The data concerning coronary bypass procedures alone are summarized in Table 6. There were three deaths in 83 patients, for a mortality of 3.6%. The mortality was 0% for single bypasses,

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TABLE 7: OPERATIVE MORTALITY AND DATA FOR OTHER PROCEDURES

	# Patients	#(%) Death	CPB Time (min)	Aortic Clamp Time (min)	Operative Blood Loss (ml)	Operative Blood Replacement (ml)
CBG & VSD	2	1(50)	72.0	72.0	807	485
AVR	12	0(0.0)	59.0	33.5	500	0
MVR	10	0(0.0)	49.5	33.5	430	0
AVR & MVR	3	0(0.0)	87.0	65.5	1000	120
AVR & CBG	10	0(0.0)	91.5	65.0	600	453
MVR & CBG	7	1(14.2)	81.0	53.5	604	420
CONG	1	0(0.0)	62.0	45.0	350	0

LEGEND: CBG=Coronary Bypass Graft
VSD=Ventricular Septal Defect
AVR=Aortic Valve Replacement
MVR=Mitral Valve Replacement
CONG=Congenital Heart Defect
CPB=Cardiopulmonary Bypass
Valve=Valve Replacement

8.3% for double bypasses, 2.4% for triple bypasses and 0% for quadruple bypasses. Among 23 patients with left main coronary stenosis, one died (mortality 4.3%). Poor left ventricular function did not increase the operative risk. The average cardiopulmonary bypass time, aortic cross-clamping time, intraoperative blood loss and blood replacement are shown in the same table. Some patients received one more unit of blood in the early postoperative period.

The data concerning the other operations are presented in Table 7. Among the two patients with post-myocardial VSD, one died for a mortality of 50%. There was no mortality among 25 patients receiving isolated aortic, mitral or double valve replacements. One death occurred in the 17 patients undergoing valve replacement and coronary bypass (mortality of 5.8%). The only patient undergoing repair of a congenital defect survived. The average cardiopulmonary bypass time, aortic cross-clamping time, intraoperative blood loss and replacement are shown in the same table. Some patients with single valve replacement in whom no blood was replaced during the operation received one unit of blood later on in the postoperative period.

Postoperative complications occurred in 62 patients and contributed to the death of five patients (Table 8). Significant supraventricular or ventric-

ular arrhythmias were seen in 24 patients and could be controlled medically in all. Arrhythmia was the probable cause of sudden death in one patient who did not have prior arrhythmic problem. Three patients were re-explored for postoperative bleeding: their subsequent clinical course was uneventful and not prolonged. Sternal wound dehiscence with the need for immediate sternal rewiring occurred in three patients, all of whom left the hospital in satisfactory condition. There were no instances of sternal wound infection in this series. Low cardiac output defined as the need for temporary cardiotoxic drugs with or without respiratory support was present in five patients, and resulted in death of two of them. Intra-aortic balloon support was never used. Postoperative strokes occurred in a total of nine patients, two of whom succumbed as a direct result of this complication. Other complications including serious pulmonary problems, thrombophlebitis, temporary renal failure and pulmonary emboli were seen in 17 patients, all of whom eventually recovered. The data concerning the five hospital deaths are summarized in Table 9.

Discussion

As the general population grows older, a significant number of elderly patients with coronary

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TABLE 8: POSTOPERATIVE COMPLICATIONS (deaths)

	Severe Arrhythmia	Reop for Bleeding	Sternal de- hiscence (reop)	Low Cardiac Output	Stroke	Serious Lung Complication	Temporary Renal Failure	Phlebitis	Pulmonary Embolism
83 CBG	16(1)	2	2	2(1)	5(1)	7	1	3	1
2 CBG & VSD	1			1(1)					
12 AVR	1	1			1	1			
10 MVR				1					
3 AVR & MVR	1				1		2		
10 AVR & CBG	3		1		1				
7 MVR & CBG	2			1	1(1)	1			
1 Cong	1					1			
128	25(1)	3	3	5(2)	9(2)	10	3	3	1

LEGEND: CBG=Coronary Bypass Graft
VSD=Ventricular Septal Defect
AVR=Aortic Valve Replacement
MVR=Mitral Valve Replacement
Cong=Congenital Heart Defect
()=Death

and valvular diseases become potential candidates for open heart surgery. For example in our practice, 56 of 683 patients operated in 1978 (8.1%) and 72 of 934 patients operated in 1979 (7.7%)¹ were over 70 years of age when undergoing open-heart surgery. The purpose of this retrospective study was to define the operative risk in old patients and to determine if such a major surgery can safely be recommended in a group of patients whose advanced age is viewed with understandable concern by their private physician.

General surgical procedures, *ie* non-cardiac, carry greater hazards in elderly than in younger patients, hence a traditional conservatism in recommending general surgical operations to old patients. This view may not hold true for cardiac procedures which precisely correct one of the major determinants of increased operative risk in old patients, namely their cardiac status. When performed in older patients, who are otherwise in good general health, cardiac surgery could therefore be expected to yield results much closer to those obtained in younger patients. Furthermore, it would seem logical indeed to apply palliative

procedures such as coronary revascularization or valve replacement to patients whose life expectancy is normally limited and who are therefore not expected to greatly outlive the duration of palliation offered to them. Such a premise is obviously valid only if the palliation in question can be delivered with an acceptable risk.

Review of the pertinent literature of the past decade on open-heart surgery in elderly patients reveals hospital mortality rates varying widely. (Table 10). Comparison of the results between the different series is however difficult because of continuing improvement in surgical technique over such a long period of time. Nevertheless, a definite trend toward lower mortality is evident particularly during the recent years; this being true with a few exceptions^{19,23} for all types of procedures. The consensus of opinion shared by every author is that age alone should not exclude patients from consideration for surgery and that mortality rate for properly selected older patients is acceptable.

The results of the present study showing an operative risk of 3.9% for all operations and 3.1%

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TABLE 9: CAUSES OF DEATH

Age/Sex	Diagnosis	Operation	Cause of Death
1. 78/M	CAD	CBGx2	Stroke, 2 days Postop
2. 74/F	CAD, CHF, Left Main Lesion	CBGx2	Low Cardiac Output Died at Surgery
3. 74/M	Mitral Regurgitation, CAD	MVR&CBGx2	CVA During Surgery Died 3 Days Postop.
4. 83/M	CAD, VSD, Post infarction	CBGx2 & Closure VSD	Low Cardiac Output Multiple Organ Failure Died 3 Days Postop
5. 79/F	CAD	CBGx3	Sudden Death, 4 Days Postop. ? Arrhythmia

LEGEND: CAD=Coronary Artery Disease
 CBG=Coronary Bypass Graft
 CHF=Congestive Heart Failure
 MVR=Mitral Valve Replacement
 VSD=Ventricular Septal Defect
 CVA=Cerebrovascular Accident

for elective operations, compare favorably with those of the literature and are in agreement with the view that cardiac surgery can be performed with reasonable risk in an elderly population.

General preoperative risk factors inherent to old patients had only a modest influence on postoperative morbidity and mortality. Previous hypertension, a history of previous vascular disease or vascular surgery, evidence of mildly abnormal renal function tests or the presence of diabetes were not associated with increased risk. The management of diabetes was standard, consisting in control with regular insulin during the peri-operative period with return to routine preoperative regimen thereafter. Chronic obstructive pulmonary disease was probably responsible for a certain incidence of pulmonary complications and sternal wound dehiscence which did not increase the mortality however. The incidence of postoperative phlebitis and pulmonary embolism was low, contrary to what was seen in younger patients undergoing similar operations at our institution.¹ Postoperative strokes represent the only source of morbidity and mortality more frequently seen in the older patients. This is potentially the most disabling of all complications, and strokes were responsible for two of the five deaths of this series. Strokes were found equally

divided between patients undergoing coronary revascularization alone, and those subjected to valve replacement or combined valvular and coronary surgery. There was no correlation between the occurrence of a postoperative stroke and a previous history of stroke, a previous history of carotid surgery or the presence of an asymptomatic carotid bruit, nor could the appearance of a stroke be linked to any important operative events such as episodes of hyper or hypotension, duration of cardiopulmonary bypass or length of aortic clamping or postoperative bleeding. Marked ascending aortic arteriosclerosis as a potential site for cerebral embolism represents a local risk factor, the importance of which is however not clear since many patients with diseased aorta did not develop a stroke. It is probable that postoperative strokes are more related to pre-existent cerebral arteriosclerosis, and therefore are difficult to prevent or avoid.

The importance of risk factors specific to the cardiac status of the patient was also minimal on morbidity and mortality. For example, previous myocardial infarction, poor left ventricular function, the presence of left main coronary artery stenosis, the extent of coronary artery involvement, or a history of congestive heart failure did not influence greatly the overall results.

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TABLE 10: LITERATURE REVIEW

Author	Period of Study	Total No. Patients/Age	AVR			MVR		
			No. Patients	Death	%	No. Patients	Death	%
Grondin(2)	1963-1969	120/≥60	38	(9)	23.7	34	(7)	20.6
Oh(3)	1964-1970	114/≥60	73	(11)	15.0	22	(4)	18.0
Guthrie(4)	1964-1971	36/≥65	15	(5)	33.0	16	(6)	37.0
Killen(5)	1968-1971	18/≥60	7	(1)	14.2	2	(0)	0.0
Waddy(6)	1960-1972	69/≥60	37	(6)	16.0	18	(0)	0.0
Hamby(7)	-1972	17/≥65						
Shanahan(8)	1963-1972	100/≥60	46	(4)	8.5	31	(7)	23.0
Ashor(9)	1969-1972	100/≥65						
Henze(10)	1969-1972	29/≥60	29	(1)	3.0			
Copeland(11)	1963-1973	196/≥65	196*	(22)	12.0			
Barnhorst(12)	1968-1973	305/≥65	160	(17)	10.6	60	(12)	20.0
Meyer(13)	1969-1974	95/≥70						
Quinlan(14)	1970-1974	94/≥65	32	(5)	16.0	11	(1)	9.0
Stringer(15)	1969-1975	207/≥65						
McCallister(16)	-1975	48/≥70						
Hochberg(17)	1966-1975	73/≥60	73	(2)	2.7			
Gann(18)	1969-1975	50/≥70						
Smith(19)	1960-1975	157/≥65	58	(10)	17.0	28	(9)	32.0
Hines(20)	1971-1976	12/≥70	12	(0)	0.0			
Bessone(21)	1972-1976	54/≥70	21	(1)	4.7	14	(0)	0.0
Hochberg(22)	1968-1977	43/≥65				43	(6)	14.0
Jones(23)	1965-1978	38/≥65	27	(0)	0.0			
Brawley(24)	1978-1979	130/≥70						
Present Report	1978-1979	128/≥70	12	(0)	0.0	10	(0)	0.0

* Include: 24 AVR & CBG
16 AVR & Resection ascending aorta

**Include: 4 Double valve
1 Double valve & CBG
1MVR & Left ventricular aneurysm resection
1 AVR & Repair mitral valve

The combination of coronary artery surgery and valve replacement also does not appear to carry a prohibitive operative risk. A high mortality was encountered in patients with post-myocardial ventricular septal defects, but such experience is shared by others^{25,26} when the operation must be conducted in the early post-infarct period, because of the patient's deteriorating general condition.

From this analysis, it would therefore appear that the mere presence of general or cardiac risk factors before surgery are not reasons sufficient enough to deny cardiac operations to elderly patients who otherwise are in good general health.

Finally, from the surgical standpoint, it is also apparent that older patients are able to withstand the stress of open-heart surgery satisfactorily. Complications inherent to cardiac surgery, such

as postoperative bleeding, arrhythmias and low cardiac output, were not particularly frequent in this elderly population, nor did they lead to a significant increase in morbidity and mortality. Factors conducive to low risk in cardiac surgery in general, such as the experience of the team, the performance of expeditious surgery and close supervision during the postoperative period are believed to be of particularly great importance when applied to cardiac surgery performed in older patients.

Summary

The experience with open-heart surgery in 128 patients older than 70 years is reviewed. The hospital mortality was 3.1% for elective operations and 3.9% for all operations. The mortality was 3.6% for coronary bypass procedures, 50% for re-

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TABLE 10: LITERATURE REVIEW

Double Valves			CBG			Valve & CBG		
No. Patients	Death	%	No. Patients	Death	%	No. Patients	Death	%
10	(4)	40.0	5	(0)	0.0			
10	(6)	60.0						
4	(3)	75.0						
2	(1)	50.0	2	(0)	0.0			
4	(0)	0.0						
			17	(1)	6.0			
8	(2)	25.0	8	(0)	0.0			
			78	(2)	2.5	3	(1)	33.0
33	(14)	42.4	27	(1)	3.7	13	(3)	23.1
			86	(9)	13.9			
13	(0)	0.0	12	(0)	0.0			
			207	(9)	4.3			
			48	(3)	6.2			
			30	(2)	6.6	12	(1)	8.3
7	(2)	29.0	47	(9)	19.1	17	(1)	5.8
						19**	(1)	5.5
			12	(4)	33.0			
3	(0)	0.0	83	(3)	3.6	17	(1)	5.8

LEGEND: AVR=Aortic Valve Replacement
MVR=Mitral Valve Replacement
CBG=Coronary Bypass Graft

pair of post-myocardial infarctions ventricular septal defect, 0% for isolated single or double valve replacements and 5.8% for combined valve replacement and coronary bypass grafts. Postoperative strokes, probably related to cerebral arteriosclerosis, represent one source of morbidity and mortality associated with advanced age and difficult to avoid. Other factors such as hypertension, diabetes, chronic obstructive pulmonary disease, previous myocardial infarction, decreased left ventricular function or the presence of left main coronary stenosis, did not lead to increased operative risk. This experience and information gathered from a survey of the literature indicate that advanced age alone is not a contraindication for open-heart surgery.

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Clinical Theophylline Pharmacokinetic Assessment: A Valuable Tool

DAVID C. MAY, M.D., Ph.D., ELSA J. ROE, M.B.B.S. AND CHARLES H. JARBOE, Ph.D.

The use of serial theophylline plasma level determinations to calculate individual pharmacokinetic variables is discussed in this article. The indications and rationale for pharmacokinetic evaluation are outlined. A brief description of the mathematical handling of the data is presented. By the judicious utilization of this technique individual dosing schedules may be developed for the patient with atypical theophylline elimination rates.

THE use of therapeutic drug monitoring to evaluate the adequacy of drug therapy has enjoyed enormous popularity in the past 15 years. This tool allows the physician to appropriately adjust the dose given to a patient in order to maintain satisfactory drug levels. Routine measurements are now made on anticonvulsants, tricyclic anti-depressants, lithium, digoxin, some antibiotics, and theophylline.¹

In the case of theophylline (a methylxanthine) this plasma level monitoring has been carried further to include serial plasma level determinations to calculate individual pharmacokinetic parameters for a particular patient. This technique allows individualization of the dose and dosing interval and reduces the risk of toxic effects associated with empiric alteration in the dosing regimen. The following case report demonstrates the application of this technique.

Case Report

A 17-year-old black male presented with a long history of multiple hospital admissions for status asthmaticus. Additionally, he had been hospitalized several times for status epilepticus, his seizure disorder resulting from a near drowning

episode at the age of 14 years. His medication over the past three years included phenobarbital, phenytoin, aminophylline, terbutaline, and two short courses of methylprednisolone. Frequent theophylline plasma level determinations both during hospitalization and as an outpatient revealed consistently subtherapeutic levels.

In December, 1979, he was again admitted for status asthmaticus. Due to the history of repeatedly low theophylline levels a clinical pharmacokinetic assessment was performed. Medications at the time included Theo-dur® 300 mg q 8 hours, terbutaline 5 mg q 8 hours, phenytoin 100 mg q 6 hours and phenobarbital 100 mg q H.S. The results of this evaluation are shown in Table 1.

It was determined that the patient had an extremely rapid elimination rate resulting in a plasma half-life of 1.9 hours. The dose necessary to maintain a mean theophylline plasma concentration of 15 µgm/ml on an every four schedule was calculated to be 900 mg of aminophylline. However, due to the large fluctuations in plasma concentration expected with this schedule and dose, it was felt that the use of a slow release drug product was indicated. Based on this information, the patient was placed on 1.5 grams of Theo-dur® every eight hours. Plasma theophylline levels obtained two days after starting this regimen re-

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Table I

Pharmacokinetic Data, T.B., 17 Year Old Black Male

$T_{1/2}$	=	1.9	hrs.
VD_{ext}	=	41.7	liters
k_e	=	.36	hr. ⁻¹
C_o	=	7.9	$\mu\text{gm}/\mu\text{l}$
Calculated Dose	=	900	mg. Aminophylline po q 4 hrs.*

* Due to the large swings in plasma concentration that would occur with this dose the patient was placed on Theo Dur* 1.5 gm q 8 hrs.

vealed a two hour post dose level of 18.8 $\mu\text{gm}/\text{ml}$ and a pre-dose level of 12.0 $\mu\text{gm}/\text{ml}$. Clinically the patient became wheeze free and was discharged on this schedule. Follow-up over the subsequent three months demonstrated much less frequent wheezing episodes and theophylline plasma levels consistently within the therapeutic range of 10-20 $\mu\text{gm}/\text{ml}$.

Why Perform Pharmacokinetic Analysis

The purpose of a clinical pharmacokinetic evaluation is to provide the physician with a rapid, objective method of calculating the dose and dosing interval necessary to maintain adequate bronchodilator therapy while reducing the risk of toxic manifestations associated with empiric dosing alterations. This technique allows a rational dosing plan to be developed for the patient with an atypical elimination rate so as to provide optimum plasma levels of the drug based on that individual's pharmacokinetic variables.

There are three characteristics of theophylline in man that make this pharmacokinetic analysis useful. First is the relatively narrow therapeutic range of theophylline, 10-20 $\mu\text{gm}/\text{ml}$.² Levels less than 10 $\mu\text{gm}/\text{ml}$ are associated with poor clinical response and levels greater than 20 $\mu\text{gm}/\text{ml}$ are associated with increasing risk of toxic effects. The maintenance of these levels is of obvious importance. Secondly, the short half-life of theophylline, four to six hours in adults,³

requires frequent dosing to maintain plasma levels. However, because of its first-order elimination characteristics, the half-life is constant over a wide range of plasma concentrations allowing the prediction of dosage changes necessary to reach a given plasma level. Thirdly, because of its extensive hepatic metabolism, there are numerous factors which may alter the elimination rate. This may produce plasma clearance rates markedly different from those normally expected, making the maintenance of adequate plasma levels on standard dosing schedules difficult.

There are several benefits that may be derived from the maintenance of therapeutic levels of theophylline. The first is the possibility of reducing the dose or omitting other medications, particularly β agonists, while maintaining good control with the methylxanthine. This not only reduces the patients' medication costs but allows these other agents to be held in reserve for more severe attacks.

Patient compliance is facilitated both by the improved control these subjects experience and by the reduction in adjunct medications. This is particularly important in those patients whose lifestyle and adolescent development may be hindered by uncontrolled asthmatic attacks or multi-drug dosing schedules.

Finally, by reducing the number of emergency room visits and hospitalizations, there is a potential decrease in the financial burden placed on the patient's family, always a consideration in chronic disease states.

When To Request Pharmacokinetic Analysis

Pharmacokinetic analysis is indicated when a patient on the usual four to six milligrams per kilogram dose of theophylline every six hours repeatedly experiences episodes of wheezing associated with low theophylline levels. Frequently there is a failure to achieve or maintain adequate levels. This is most easily documented by obtaining a pre-dose or "trough" theophylline level (Fig. 1). If this level is less than 10 $\mu\text{gm}/\text{ml}$ and compliance is good, the dose or dosing interval must be altered so as to provide continuous therapeutic levels.

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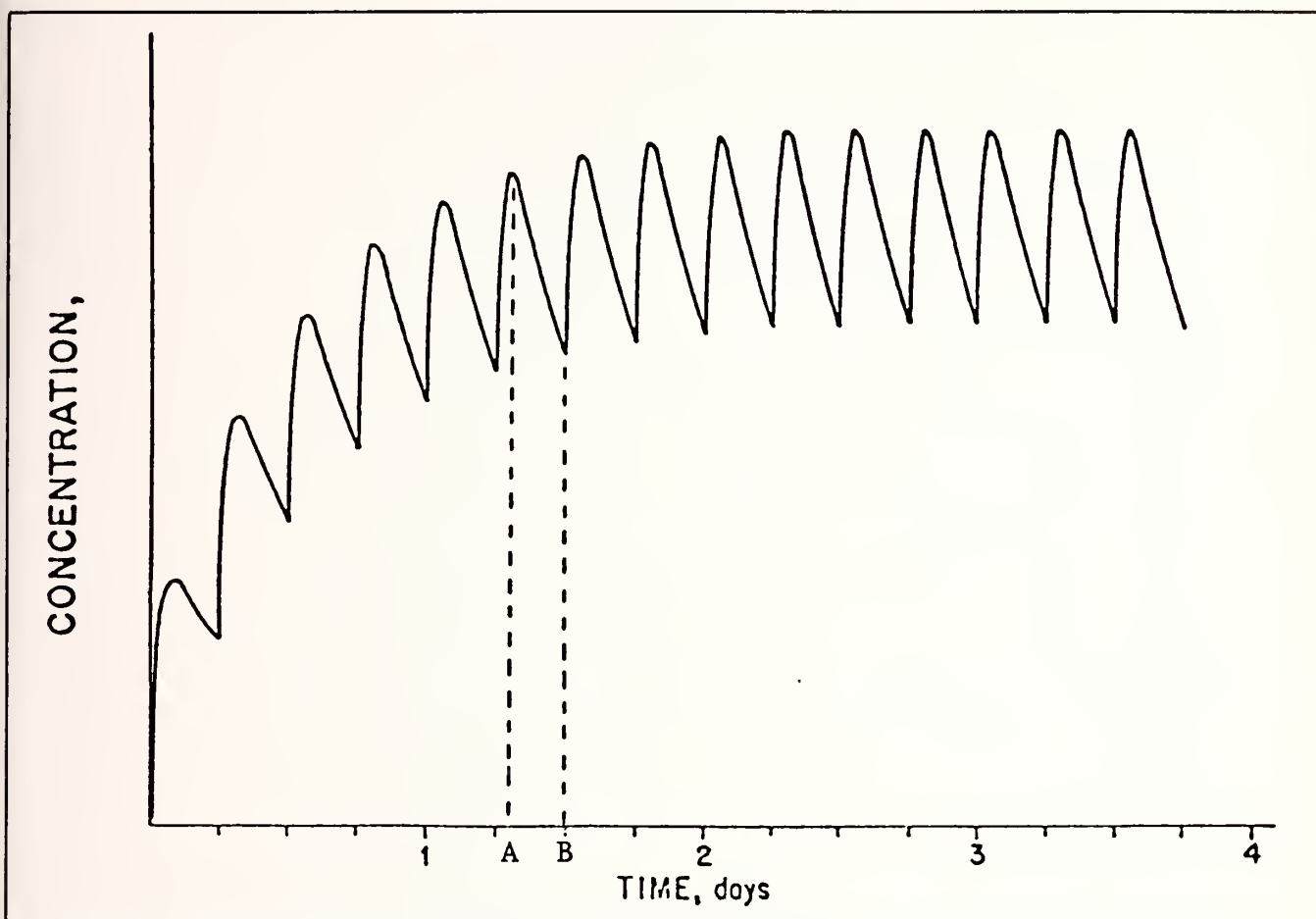


FIG. 1: The proper timing of peak and trough plasma level determinations in relation to a q 6 hour dosing schedule. Note that five doses have elapsed before sampling. A indicates the peak level, B, the trough level.

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Although often there is no indication prior to dosing that a patient has an atypical rate of elimination there are several historical factors which may alert the physician to the possibility.

Phenobarbital has been shown to increase the elimination rate of theophylline in man.⁴ Patients with seizure disorders who are on this medication should be observed closely for evidence of inadequate bronchodilator therapy.

Both marijuana and cigarette smokers have been shown to have altered theophylline elimination rates.⁵ Inquiry as to the use of these agents is particularly important in the adolescent. Since the magnitude of the alteration produced by these agents is not predictable, kinetic analysis fre-

quently is necessary to provide optimum therapy.

Infants and young children in general have a shorter theophylline half-life than adults.⁶ Because of this the standard six hour dosing interval may be far too long to maintain adequate theophylline plasma levels.

An unusual indication for kinetic analysis is the patient who manifests toxic symptoms associated with excessive plasma levels while on an accepted dosing regimen. Both congestive heart failure⁷ and hepatic cirrhosis⁸ have been shown to decrease the rate of theophylline elimination. In these cases it must be borne in mind that improvement in the primary disease state often results in a return toward normal elimination rates.

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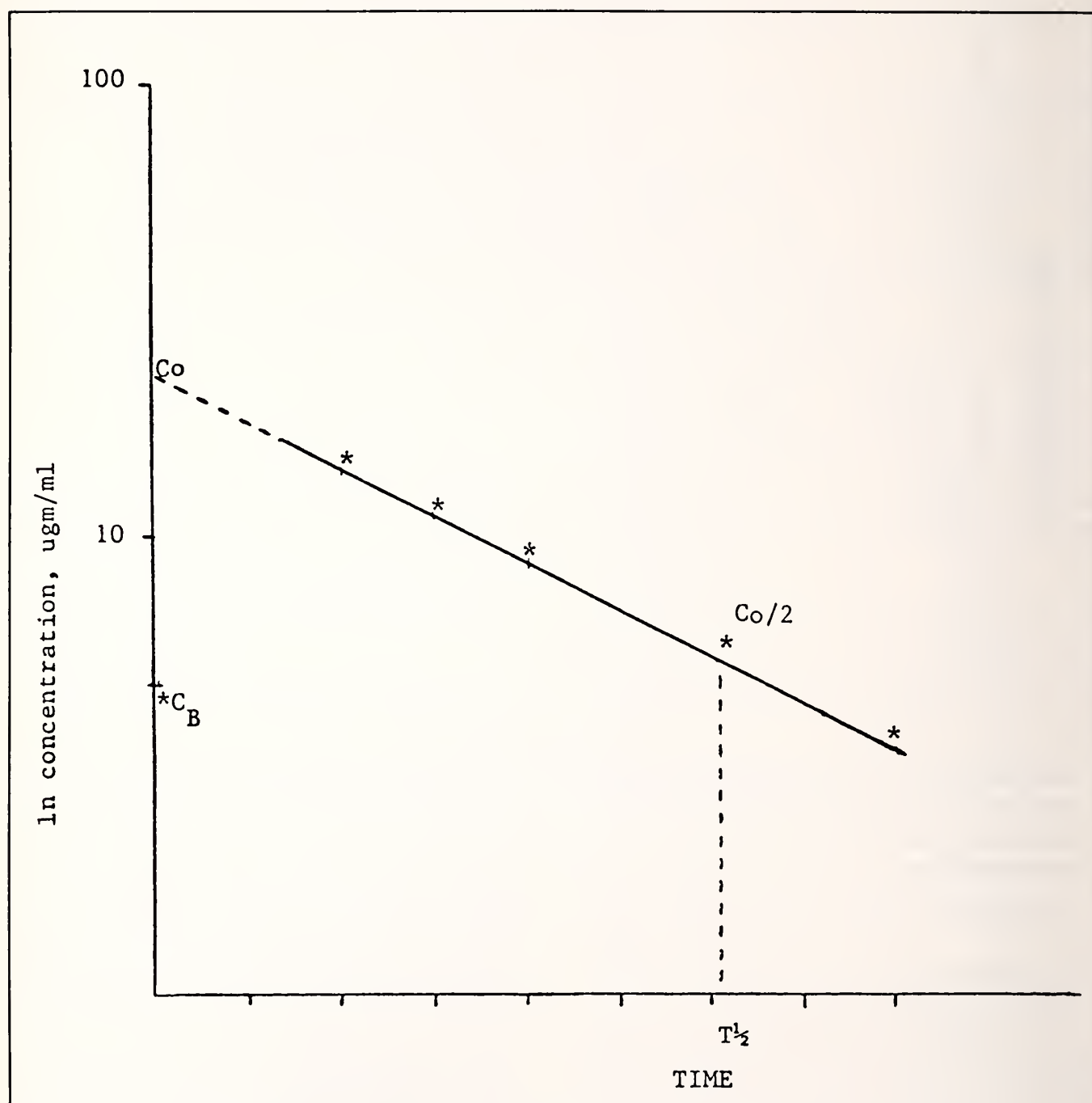


FIG. 2: Semi-logarithmic plot of theophylline plasma concentration versus time. Symbols are explained in the text.

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Performing A Clinical Pharmacokinetic Analysis

At the University of Louisville affiliated hospitals theophylline pharmacokinetic analysis is obtained in the following manner. The patient is placed on a regular release oral theophylline drug product or on intermittent intravenous aminophylline infusions until steady-state conditions exist, about 24 to 36 hours in most subjects. At the present time it is not possible to perform kinetic assessment on patients taking sustained release products or on constant intravenous infusion. However, after kinetic analysis a slow release drug product is sometimes utilized to allow the patient with a very short half-life to be on a q 8 hour schedule. This will be discussed later. After fasting four to six hours a baseline theophylline level is obtained and immediately following this the test dose is administered. The baseline level is to allow calculation of how much the plasma level increases with the test dose. Following the test dose serial blood samples are obtained at approximately two, three, four, six and eight hours post dose. No additional theophylline should be given during the test. It is far more important that the exact time of dosing and sampling be recorded than the sampling take place at exact hourly intervals. This is to assure accurate results in those patients with very short half-lives.

Each of the theophylline levels is determined and plotted on semilogarithmic graph paper versus time (Fig. II). This results in a straight line with negative slope due to the first order elimination characteristics of theophylline.

Determination Of Kinetic Variables

Once the data points are placed in graphic form, the best fit for the line through these points is determined by linear regression analysis. Extrapolation of this line to zero time yields the theoretical concentration of drug in the plasma, (C_0), that would have occurred if the drug was rapidly absorbed and distributed. The difference between the baseline theophylline level, C_B and the C_0 value is the apparent increase in the plasma concentration that occurred due to the test dose. This increase in concentration ($C_0 - C_B$) is used to calculate the apparent volume of distribution (V_D), in milliliters, of theophylline in the subject. This is deter-

mined by the equation

$$V_D = \frac{\text{Dose}}{C_0 - C_B}$$

Traditionally used for intravenous dosing routes, this equation is based on the assumption that the dose is totally absorbed and that the rate of absorption is rapid compared to the rate of elimination. Because the rate of absorption is not as rapid as intravenous injection this formula tends to underestimate the V_D .*

The half-life of elimination ($T_{1/2}$) calculated from the graph by determining the time value corresponding to the concentration of $C_0/2$. This value indicates the time necessary for half of the drug in the plasma to be eliminated. For theophylline in man, this value is constant over a wide range of plasma concentrations in any particular subject.

The elimination rate constant (k_e) is calculated using the equation

$$k_e = \frac{0.693}{T_{1/2}}$$

This value is a description of the fraction of drug eliminated from the body per unit time. The units of the k_e are reciprocal time. The total body clearance (TBC) is the product of the V_D and k_e . The TBC represents the volume of plasma cleared of drug per unit time.

From the values obtained it is possible to calculate the appropriate dose and dosing interval for any given half-life and elimination rate. The formula utilized for this is

$$\text{Dose} = V_D \times k_e \times \text{Cavg} \times T$$

Where D is the dose in micrograms, Cavg the average plasma concentration desired during the dosing interval in micrograms/ml, T is the projected dosing interval in minutes, and V_D and k_e as defined above. In most instances Cavg is placed at 15 $\mu\text{gm/ml}$, the midpoint of the therapeutic range. The dosing interval is usually placed at 360 minutes. However, in patients with very short half-lives a dosing interval of 240 minutes may be needed to prevent very rapid, high plasma concentrations resulting from the larger doses necessary with the six hour interval.

After being placed on the calculated dosing regimen for a period of time equal to five half-lives, the efficacy

* In most instances the V_D is underestimated by 10-20%. As the rate of elimination increases relative to the rate of absorption, the percent of underestimation increases.

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of the regimen is evaluated by obtaining a peak level 1.5-2 hours following the fifth dose and a pre-dose or "trough" level just prior to the sixth dose (Fig. 1). Ideally, these should fall within the 10-20 $\mu\text{gm/ml}$ therapeutic range.

Discussion

The purpose of a clinical pharmacokinetic assessment is to provide the maximum patient benefit from the theophylline drug product prescribed while reducing the risk of toxic side effects.

This type of study is easily performed on an outpatient basis or while the patient is hospitalized. There is minimal risk to the subject and minimal discomfort associated with this study.

The dose and dosing interval calculated are good approximations of those necessary to maintain adequate plasma levels of theophylline. In some subjects fine tuning of the regimen may be necessary, particularly those with very rapid rates of elimination. This is most easily performed by using subsequent peak and trough theophylline levels to adjust the dose.

In those patients with very short half lives a sustained release drug product may be necessary due to the very high peak plasma levels that may be associated with large doses of a regular release drug product. This also has the advantage of reducing the dosing frequency and increasing compliance. Extreme caution must be used in selecting the dose of a sustained release product because of the lack of a predictable conversion factor from a regular release product dose to a sustained release dose.

Conclusion

Clinical theophylline pharmacokinetic assessment can be a valuable tool in the management of the problem asthmatic. By allowing the physician to develop an individualized dosing regimen therapeutic levels may be maintained with minimal risk of toxic effects.

This technique requires serial blood sampling for theophylline plasma level determinations. From these levels, calculation of the dose and

dosing interval necessary for optimum therapy can be made. Follow-up trough and peak plasma level determinations should be used to verify the effectiveness of the regimen.

Acknowledgements

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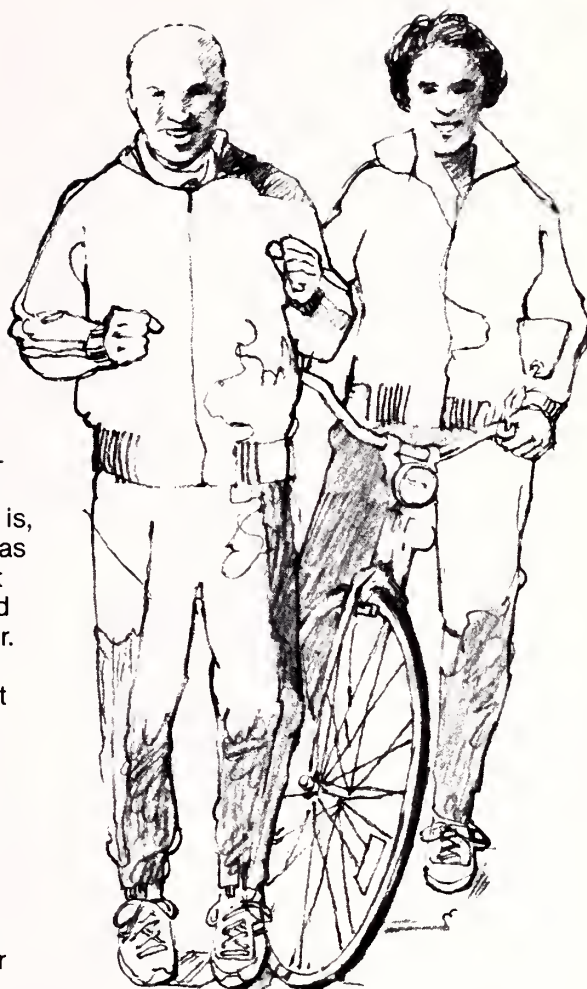
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Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

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Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

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Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁶

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Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

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Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[1030808]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

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Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Vitamin B-2.	5 mg
Vitamin B-6.	1 mg
Vitamin B-12.	3 mcg
Choline.	100 mg
Inositol.	50 mg
Manganese (as Manganese Sulfate).	1 mg
Magnesium (as Magnesium Sulfate).	2 mg
Zinc (as Zinc Sulfate).	1 mg
Iron (as Ferric Pyrophosphate, Soluble).	28 mg
Alcohol.	18%

See prescribing information on last page of this advertisement.



or Potassium Supplementation Improved Compliance...

TWIN-K[®]

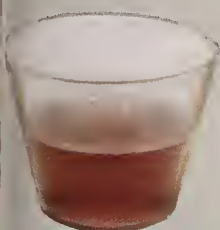
Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement
Designed for prophylactic and therapeutic use
with diuretics and adrenocorticoids.

Pleasant taste and convenient dosage aid
patient compliance.

The organic salt of potassium can be given as a
liquid without producing significant gastric
symptoms and without an untoward effect on
the mucosa of the small intestine.¹

Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.



In Cases with Chloride Deficiency...

TWIN-K-Cl[™]

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with
chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.¹

See prescribing information on last page of this advertisement.



F-E-P CREME®

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urtica; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani); folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzocaine or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme 1/2 ounce (15 gm) tubes NDC 0524-0026-51
F-E-P Creme Plain 1/2 ounce (15 gm) tubes NDC 0524-0025-51
Federal law prohibits dispensing without a prescription.
July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an anesthetic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz)

NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.
July 1980

TWIN-K-CI™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbitol and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CI is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia. The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16



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Boots Pharmaceuticals, Inc.

Shreveport, Louisiana 71106

Pioneers in Medicine For the Family



Pharmacologic and Surgical Therapy for Spasticity

PHILLIP A. TIBBS, M.D., A. BYRON YOUNG, M.D., JOHN W. WALSH, M.D. AND JAMES R. BEAN, M.D.

Spasticity is a disabling motor disorder resulting from a wide variety of neurologic conditions. Decreased inhibition or intrinsic hyperexcitability of the alpha motoneuron is the physiologic basis of spasticity. Pharmacologic agents reduce spasticity by inhibition of the alpha motoneurons or by reducing the force of muscle contractions. Surgical procedures to disrupt the reflex arc may prove beneficial when medical therapy has been ineffective in severe cases of spasticity.

SPASTICITY is a motor disorder characterized by exaggeration of tonic stretch reflexes plus abnormality of muscle tone secondary to hyperexcitability of the stretch reflex. Spasticity occurs in a variety of brain, brainstem and spinal cord conditions where the upper motor neuron component is affected, and varies in character from patient to patient based on the nature of the disease and its specific anatomical focus. The increasing number of survivors from stroke, spinal cord injury, etc. has magnified this clinical problem.

Spasticity is often one of the more disabling sequelae of neurologic disease. Uncontrollable contractions in the musculature of the trunk or extremities, reflex flexor spasms and sustained clonus of whole limbs may mask or impair residual motor function and thereby compound the neurologic deficit. On occasion, however, spasticity may function as an "endogenous crutch" in a paretic limb, such that in some cases a patient

with a paretic lower extremity may become ambulatory by making use of the rigidity in his limb deriving from spasticity. Compounding the complexities of management of spasticity, the physician is often faced with a patient who has significant residual neurologic function that must be preserved at all costs.

Physiology of Spasticity

Although destruction of descending inhibitory pathways anywhere in the neuraxis can produce spasticity, the final common denominator is the concept of the spinal cord reflex arc.¹ When a deep tendon receives a stretch stimulus, sensitive cells in the muscle spindle begin sending afferent signals to the spinal cord. Branches of these fibers synapse on the alpha motoneurons which elicit movement of an entire muscle. Afferent fibers also stimulate small gamma motoneurons which act reflexly on the muscle spindle itself to recalibrate it so that it remains sensitive to stretch stimuli at any muscle length. Extensive physiologic research has demonstrated that exaggera-

TABLE
Summary of Pharmacologic Agents for Treatment of Spasticity

DRUG	INITIAL DOSE	MAXIMAL DOSE	INDICATIONS	SIDE EFFECTS
Diazepam	2-5 mg b.i.d.	20 mg t.i.d.-q.i.d.	spinal cord lesions; painful spasms	drowsiness, dependence
Baclofen	5 mg b.i.d.	20 mg q.i.d.	spinal cord lesions; flexor spasms	confusion in elderly patients
Dantrolene	25 mg q. day	100 mg q.i.d.	cerebral or spinal cord lesions	weakness; hepatotoxicity

tion of the stretch reflex is due not to disorders of gamma motoneuron function but to either intrinsic hyperexcitability or decreased inhibition of the **alpha** motoneuron.

Excitation of the motoneuron occurs when stimulation of the muscle spindle is sufficient to produce depolarization of the motoneuron. The two types of inhibitory mechanisms are termed **presynaptic inhibition** and **postsynaptic inhibition**. Internuclear neurons in the spinal cord may be stimulated by a variety of incoming sensory information. These interneurons intercept other sensory fibers before they reach the synapse with the motor neuron pool. At the point of interception the neurotransmitter gamma-aminobutyric acid (GABA) is released, which dampens the effectiveness of incoming stimuli. This is called presynaptic inhibition. Postsynaptic inhibition is also due to inhibitory interneurons in the spinal cord which hyperpolarize the motor neuron and make it less susceptible to stimulation from incoming signals.

These physiologic factors provide the basis for both pharmacologic and surgical therapy for spasticity. We will review the rationale and treatment protocol for the most widely used drugs for the management of spasticity as well as the surgical therapies which offer some benefit in selected cases.

Pharmacologic Management of Spasticity

The three most commonly used medications for spasticity are dantrolene, diazepam, and baclofen (Table). Dantrolene acts primarily on the muscle itself while diazepam and baclofen operate at the level of the spinal cord to reduce spasticity. Each medication has greatest benefit in certain clinical settings and can be used in combination to achieve synergistic effects as well.

1. **Diazepam**—The benzodiazepines reduce spasticity by potentiating the effect of GABA, the neurotransmitter for presynaptic inhibition.² This increases receptor affinity to GABA, thereby rendering the same quantum of GABA more effective in producing presynaptic inhibition. Diazepam is most helpful in patients with spasticity from spinal cord lesions, especially patients with painful or continuous spasms. Often large doses are required, and only those patients not developing extreme drowsiness in response to this medication can achieve full benefit. The dosing regimen is initiated with 2-5 milligrams po bid and is increased in increments until maximal effect is achieved. Maximal dosage is 20 milligrams po tid to qid. If maximal doses are achieved over a long period of time, drowsiness often does not become a significant problem. The side effects of diazepam include sedation, light-headedness and dizziness and, in some cases, a physical dependence.

2. **Baclofen** is a recently introduced medication which has been developed specifically for treatment of spasticity. Baclofen is a widespread neuronal depressant. Its mechanism of action has not been as thoroughly elicited experimentally as that for diazepam and dantrolene but baclofen is felt to act mainly by suppression of excitatory transmitter release and/or by direct postsynaptic action.³ Indications for baclofen include patients with painful spasms, especially painful **flexor** spasms, patients with dystonias of the lower extremities and patients with spinal cord lesions leading to spasticity. Baclofen is clearly more effective for spasticity from spinal cord lesions than from cerebral or brainstem lesions. Although not effective for every patient with spasticity from a spinal cord lesion, it is felt at present to be the initial drug of choice for spinal cord related spasticity. Baclofen therapy is initiated by giving one-

half of a 10 milligram tablet bid. This dosage regimen should be increased by ½ tablet every three to five days until a therapeutic benefit is achieved. A maximum of 20 milligrams po qid is advised and if therapeutic benefit is not achieved at these dosage levels, the medication should be discontinued. Baclofen has very few side effects, but in elderly patients confusion or hallucinations may occur. In high dosages sedation is sometimes a problem. In addition, there has been reported a possible increase in seizure frequency in patients with epilepsy who are also being treated with baclofen.

3. Dantrolene-Dantrolene acts primarily on the muscle rather than the spinal cord in order to reduce spasticity. Dantrolene affects the extrafusal muscle fibers and not the muscle fibers of the muscle spindle apparatus. Its basic mechanism is to reduce the efflux of calcium into the sarcoplasm, thereby reducing the force of muscle contraction.⁴ This acts in effect to weaken striated muscle. The resulting muscle weakness may be critical in the marginally ambulatory patient. Dantrolene is most effective in patients with severe prolonged muscle contractions, especially patients not troubled by the decrease in muscle power. Patients using their spasticity as an "endogenous crutch" will not benefit since the drug will not only abolish the spasticity but will also weaken the limb. Dantrolene tends to be effective for patients with spasticity deriving from cerebral or spinal cord lesions. The initial dosage is 25 milligrams po q day. This should be increased by 50 milligrams per week until a maximum dosage of 100 milligrams po qid is achieved. Again, if beneficial effect is not achieved with these dosage levels, the medication should be discontinued. Side effects of dantrolene include weakness, diarrhea and drowsiness. Hepatotoxicity has been reported as a possible complication, occurring most commonly in women, especially women past age 35 or women on estrogen therapy. Patients on long-term dantrolene therapy should be followed at intervals of at least three months with laboratory determination of transaminase levels, LDH, alkaline phosphatase and serum bilirubin.

4. Intrathecal Phenol-For completeness sake, it should be mentioned that intrathecal phenol is another pharmacologic therapy that has been uti-

lized for spasticity. Phenol concentrations sufficient to produce long-term decrease in spasticity almost inevitably eliminate any residual motor and sensory function, so that this regimen should not be utilized in patients relying on spared neurologic function. In patients with total and complete spinal cord lesions, however, the intrathecal phenol may be beneficial. The technique should be used only by experienced persons, since intrathecal migration of phenol up the spinal cord or intrathecally may result in quadriplegia or respiratory arrest.

Surgical Therapy for Spasticity

Surgical treatments for spasticity have consisted of operative efforts to interrupt some component of the reflex arc. Posterior root section was introduced by Förster in 1918.⁵ This required a major open operative procedure with transection of multiple posterior roots. The procedure was in general effective for spasticity but had the major drawback of rendering the patient densely anesthetic. In 1945, Munro described anterior root section, a procedure which relieved spasticity but caused a lower motor neuron deficit leading to profound atrophy of the affected muscle groups.⁶ In 1949 a cordectomy was described.⁷ This involved surgical excision of the spinal cord and its associated anterior and posterior roots. Naturally this abolished spasticity, but the procedure was limited to patients with dense neurologic deficits and also led to profound generalized muscular atrophy.

A major step in the surgical therapy for spasticity occurred when Bischof described a myelotomy procedure in 1952.⁸ Bischof's myelotomy consisted of an incision into the spinal cord in the coronal plane separating the cord into anterior and posterior halves, but sparing the anterior and posterior roots. The goal was to disconnect the afferent stimulus from the motor neuron while preserving sensory function and preventing generalized atrophy. The procedure was effective in many cases, but in patients with retained voluntary corticospinal tract function, the postoperative motor deficit was often worse than the preoperative status. In 1967 an improved "T-myelotomy" was developed to spare the corticospinal tract function yet still disrupt the reflex arc at the spinal cord level.⁹ The procedure is per-

formed in the lumbosacral cord to control spasticity in the lower extremities and has an 80-90% success rate. In some cases patients have shown improved motor function after myelotomy. This is felt to be due to elimination of the interfering influences of spasticity in patients with some retained motor function. Transient deterioration in sensory and bladder function has been described as a regular sequelae of this procedure. Clearly, operative myelotomy is reserved for patients who have not responded to pharmacologic therapy and whose spasticity is confined to the lower extremities.

More recently, a percutaneous technique has been described that may be beneficial to many patients with spasticity.¹⁰ The procedure is performed under fluoroscopic control and needles are introduced into the intervertebral foramina at the levels to be treated. When localization is adequate, a selective radiofrequency lesion is made that eliminates the small unmyelinated fibers but preserves all other afferent fibers in the dorsal roots. This obliterates a potent afferent source of spasticity while preserving other sensory modalities. The procedure is therefore very valuable in patients who have spasticity but otherwise good neurologic function. The procedure is tedious and often requires repeated efforts for full success but in selected cases is extremely beneficial.

The treating physician now has available to him a well-established armamentarium of therapies for spasticity. With careful case selection, patients with spasticity can be markedly improved. Success requires careful titration of dosage regimens for these pharmacologic therapies and careful case selection after failure of medical therapy when surgical treatment is contemplated.

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CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
 Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
 Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
 Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis and Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

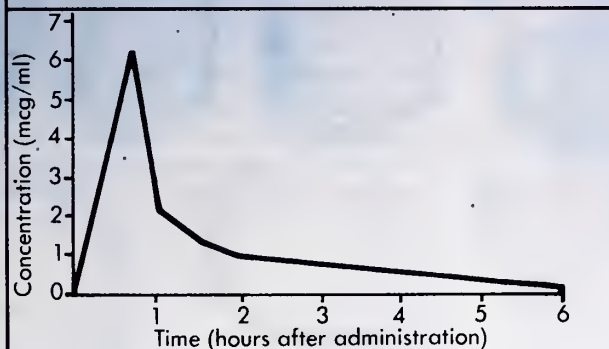
*Dosage should not result in a dose higher than that for adults.

†depending on severity

Half the dose
is absorbed in 9 minutes!
compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{1/2}$ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories • Philadelphia, Pa 19101



Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

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(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

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I HAVE just dropped in the wastebasket one of the most inane pieces of trash to appear in a newspaper or magazine in recent memory. It is entitled, "Charlie's Lucky to be Alive" and appeared in the *Louisville Today Magazine* in February 1981. The author, Gail McGowan Mellor, is a "free-lance" writer who undeniably leaves truth and objectivity bleeding in the lists as she finishes her joust.

In fact, there is little doubt that Ms. Mellor would fit Mark Twain's definition of "an ignorant, self-complacent simpleton who failed at ditching and shoemaking and fetched up in journalism on [her] way to the poorhouse."

What's worse, however, is that Ms. Mellor serves this drivel under the guise of objectivity. "Who's the villain? You decide." The author would undoubtedly have had a much more fruitful career with the *New York Journal* published by William Randolph Hearst or the *New York World* published by Joseph Pulitzer during the 1890s. They led the press in sensationalism which resulted in inaccurate, exaggerated reporting that came to be known as "yellow journalism."

Ms. Mellor's nauseating prose includes: after the Cesarean section the baby "was finally pulled out through a slice in his mother's abdomen"; "the neonatal doctors and nurses pierced Charlie with 39 needles"; "a 42-inch feeding tube . . . was pushed down to his stomach through his nose"; "his wrists, heels, and umbilical cord were 'cut-down'—sliced to permit the insertion of tubes or the withdrawal of blood." I believe that I've seen this style of writing before and it was from the Cuisinart School of Journalism.

The misinformation contained in the article is compounded by unsubstantiated claims, eg "a concerted campaign of harassment began against home delivery." When this tactic fails she retreats to the time honored ploy of the anonymous source, in this case, supposedly a doctor who believes that the case presented ". . . should tell you something about the level and morality of the political infighting in the medical community."

At the end of page 18 and beginning of page 19, she directly quotes an obstetrician for two consecutive paragraphs. Interestingly enough this physician, who came out somewhat worse for the wear in the article says, "I never spoke to her!" Actually Bluebeard and Genghis Khan look like candidates for sainthood compared to the "objective" portrayal of the physicians involved in this story. A letter from me to Ms. Mellor requesting specific documentation on several aspects of the story remains unanswered. I like the *Louisville Today Magazine* and plan to continue my subscription. Its publisher is an outstanding young man who is bringing a publication to Louisville which will enhance the community. I regret this article got by his editor.

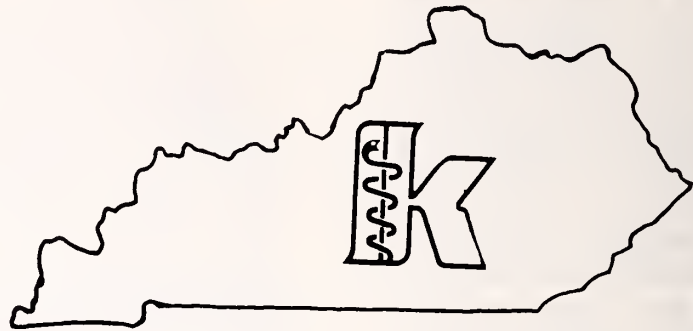
Most of us want to see the profession given an objective chance in print, but how do you avoid being cast as a malicious villain? First of all, if you are contacted by a writer from the legitimate news media, your chances of objectivity are better. The multilayered editorial review process is not infallible, but it helps eliminate this type of garbage. Sensationalism is not the principal objective and Paul Janensch of the *Courier Journal* and *Times* has made it known that factual, objective reporting continues to be a goal of the paper. If inaccuracies occur, there is a recourse for you. In a recent article, a Louisville physician's initial office charge was exaggerated in the paper. When several mid to low level employees of the newspaper failed to listen or give any attention to his request for a correction, the physician wrote to the National News Council in New York. Their investigation resulted in a front page retraction in the paper. The *Courier Journal* was one of the founders of this organization. With a "free-lance" author such as Ms. Mellor, this kind of professional self-discipline may not be available.

If you are contacted by a "free-lance" writer to give an opinion or contribute to an article, you might save yourself a great deal of subsequent difficulty and embarrassment by first learning the author's credentials and intent. Certainly, if the author wants you to take the time for an interview, a couple of examples of the author's published works along with the credentials would help you determine the credibility of the individual and avoid graduates of "yellow journalism." If your inquiries are unanswered or you are skeptical about the intent or credibility of the reporter, it could be unwise to proceed.

James P. Moss, M.D.

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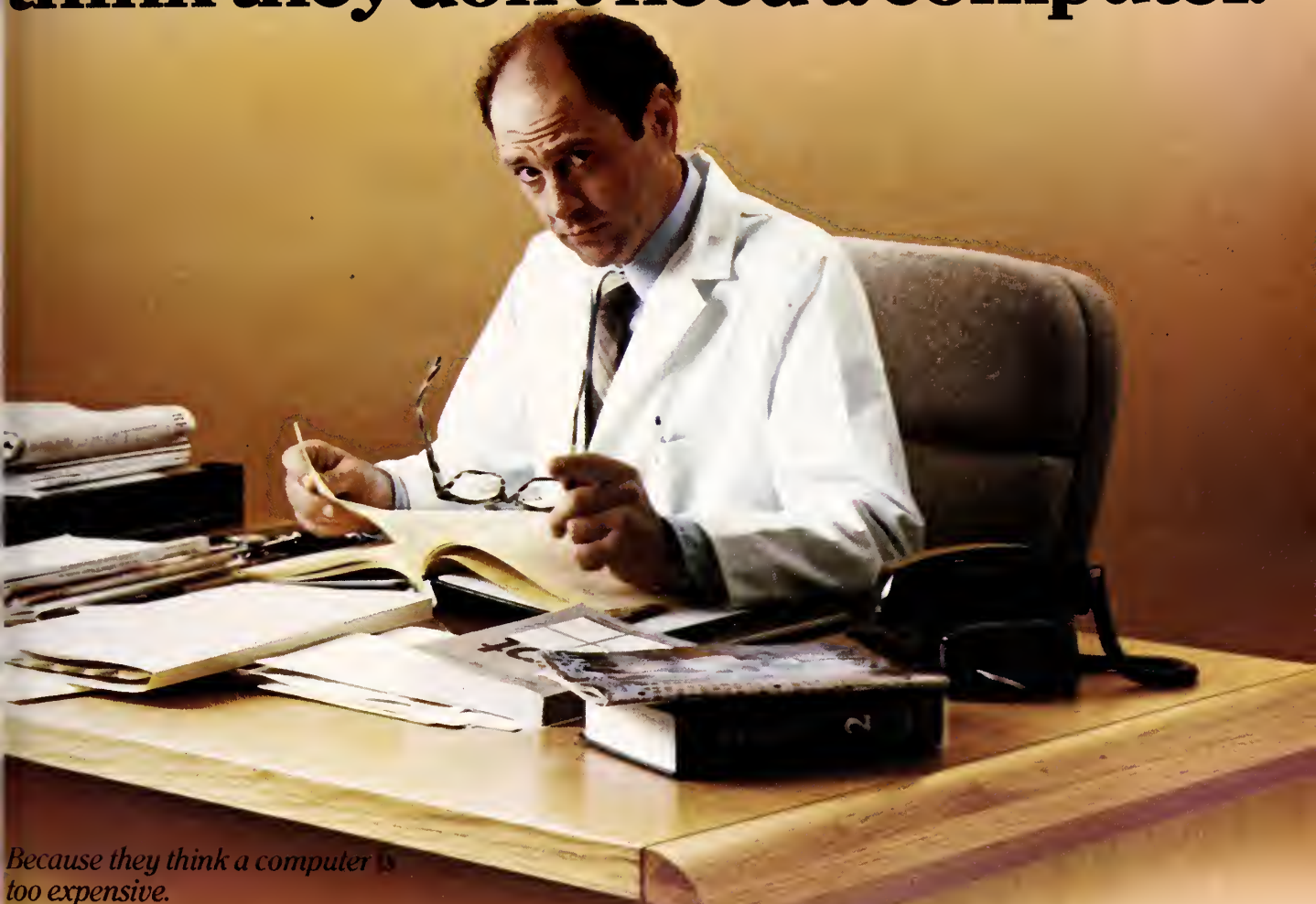
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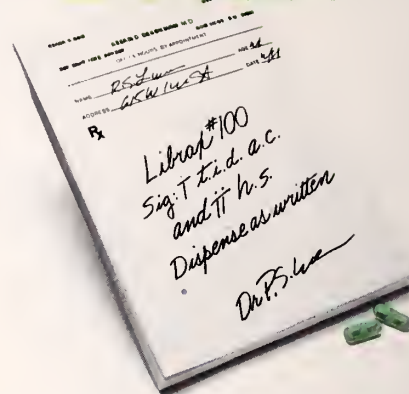
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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective, as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

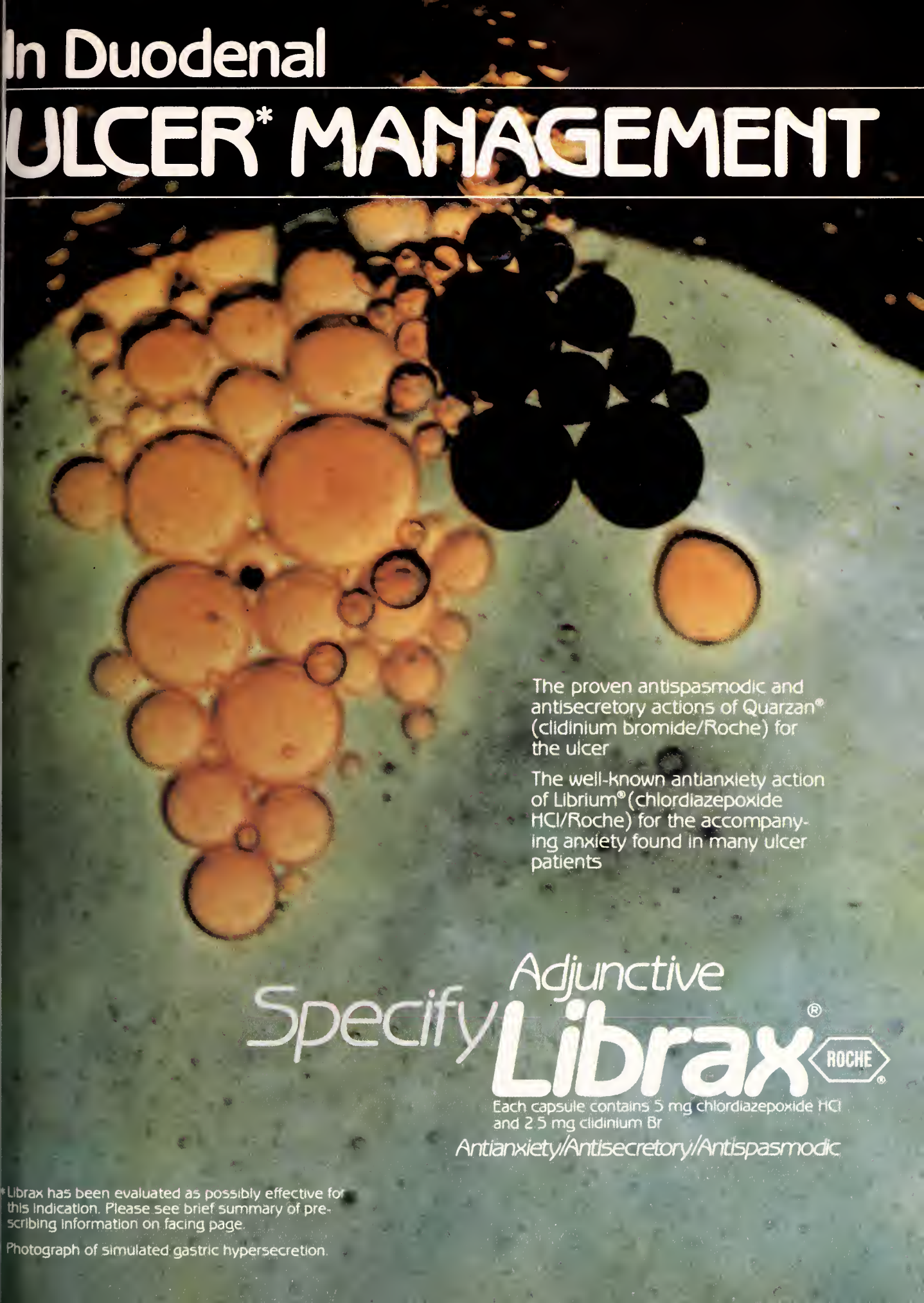
Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.




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Each capsule contains 5 mg chlordiazepoxide HCl
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Antianxiety/Antisecretory/Antispasmodic

*Librax has been evaluated as possibly effective for
this indication. Please see brief summary of pre-
scribing information on facing page.

Photograph of simulated gastric hypersecretion.

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.



getting there...

...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

prescribe

Tenuate® Dospan® ^{IV} (diethylpropion hydrochloride NF)

75 mg. controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "... anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate—it makes sense.
And it's responsible medicine.**

Merrell

Tenuate® ^{IV}
(diethylpropion hydrochloride NF)

Tenuate Dospan® ^{IV}
(diethylpropion hydrochloride NF)
controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression, changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL DOW PHARMACEUTICALS INC.
Subsidiary of The Dow Chemical Company
Cincinnati, Ohio 45215
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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride. In *Central Mechanisms of Anorectic Drugs*, S. Garattini and R. Samanin, Ed., New York: Raven Press, 1978, pp. 391-404.

K⁺ **chLORide** in **wax** **maTRIX**

SLOW-RELEASE TABLETS 10 mEq



KLOTRIX[®]
**(POTASSIUM
CHLORIDE)**

MeadJohnson
PHARMACEUTICAL DIVISION



Cultivating friendly relations and promoting mutual understanding among physicians' families is a priority. Being involved provides a variety of areas for members to make use of their many talents. Our theme this year will be "Service Is The Sunshine Of Our Life"—in serving the needs of others our personal sunshine penetrates through service in our communities, helping others achieve optimum healthy living.

We assist our Medical Societies in their programs for the advancement of medicine and health education on the County, State and National levels. Many Auxilians serve on committees on all three levels. This involvement keeps us informed of your present needs.

This year our "Shape Up For Life" campaign will concentrate on Mental Health and Fitness. The disease of this decade will be stress. Heart disease is the leading cause of death, and more than half the coronary deaths may be linked to stress. We can serve this need through health education, and working with our mental health centers.

We serve our Legislative Action needs through education, letter writing with our Legs Alert system, with personal contact, working for sound legislation to provide better health programs and care.

Over \$25,000 was raised by our Auxilians this past year for the American Medical Association Education Research Foundation. Both of our Medical Schools will benefit from our ongoing endeavors to support this cause.

McDowell House is in great need of funds. We hope to create interest in refurbishing this historical house of ours with a state project this year.

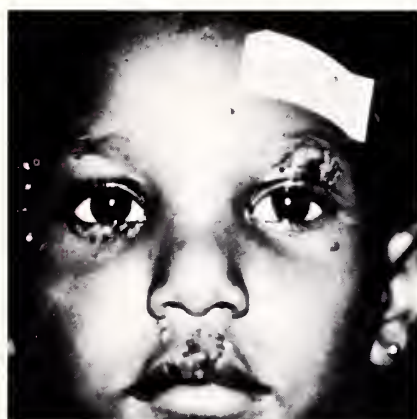
Our voluntary efforts are well worth our time because we benefit most when we serve best.

Joyce Noonan
AKMA President 1981-82

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In the treatment of impetigo -

- **100% cure rate with Tegopen® (cloxacillin sodium)**
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. No treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular.

(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

	Given Tegopen® (cloxacillin sodium)	Given penicillin V-K
<i>Staphylococcus aureus</i> (78 patients)	39	39
Returned to clinic at one week	29†	38†
Treatment failure at one week	0	18 (47.4%)
<i>Staphylococcus aureus</i> and <i>Streptococcus pyogenes</i> (9 patients)	4	5
Returned to clinic at one week	4	5
Treatment failure at one week	0	2 (40%)
No initial bacterial growth (14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.		
Beta-hemolytic <i>Streptococcus</i> (1 patient)	0	1
TOTALS:	102 patients	50 patients

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported

the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus*, 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes*, and 1% beta-hemolytic *Streptococcus*.†
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.

- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

†The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®

(cloxacillin sodium)

—effective therapy for staph infections of the skin and skin structures

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose

stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg q 6h.

Children: 50 mg /Kg /day in equally divided doses q 6h. Children weighing more than 20Kg should be given the adult dose. Administer on empty stomach for maximum absorption.

W.B. INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS

Capsules—250 mg in bottles of 100 500 mg in bottles of 100.
Oral Solution—125 mg /5 ml. in 100 ml. and 200 ml. bottles.

SUPPLIED:

BRISTOL®

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Syracuse, New York 13201

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Digest of Proceedings of a Special Meeting of the House of Delegates

Ramada Inn, Bluegrass Convention Center, Louisville, Kentucky, April 16, 1981

Bennett L. Crowder, II, M.D., Hopkinsville
Speaker of the House, Presiding

Speaker Crowder called the special meeting of the House of Delegates to order at 10:00 a.m., April 16, 1981, and asked Thomas L. Heavern, Jr., M.D., Highland Heights, to give the invocation. He then called on John E. Downing, M.D., Bowling Green, Chairman of the Credentials Committee, to give the report of the Credentials Committee. Doctor Downing reported that a quorum was present.

Doctor Crowder introduced representatives of the Department for Human Resources and the Kentucky Medical Assistance Program. He also recognized the members of the KMA Technical Advisory Committee on Title XIX, and Robert N. McLeod, Jr., M.D., KMA's representative on the Medical Assistance Advisory Council. The Speaker then turned the meeting over to the Vice Speaker, Doctor Peter Campbell, who introduced S. Randolph Scheen, M.D., Secretary-Treasurer, to make Announcements.

Doctor Campbell then introduced Frank R. Pitzer, M.D., KMA President, who provided the Delegates with an overview of KMA's involvement in the Medicaid Program since its inception, and reviewed Substitute Resolution R passed by the September, 1980, House which postponed action on original Resolution R until the April 16 meeting.

Original Resolution R stated that, "Resolved, that previous action by this House of Delegates regarding Title XIX be rescinded and that the 1980 House of Delegates take the position that KMA as an Association can no longer encourage physician participation in the Kentucky Medical Assistance Program."

Substitute Resolution R is reprinted below as follows:

RESOLVED, that the KMA Board of Trustees survey physicians throughout the Commonwealth to study participation in the Medical Assistance Program

and to assess the reasons for nonparticipation, and be it further,

RESOLVED, that the KMA examine the legal effects if KMA should withdraw from the process for appointment of physician members to the Technical Advisory Committee on Physician Services to the Kentucky Medical Assistance Program, and be it further

RESOLVED, that the KMA Board of Trustees review the operations of other state Medicaid Programs to see what features from these programs might be added advantageously to the Kentucky Program, and be it further

RESOLVED, that the KMA Board investigate mechanisms to improve the clerical operation of the Medicaid Program, and be it further

RESOLVED, that the KMA Board investigate the reasons for the current "freeze" on physician payments under the Program and take steps to see that the anticipated yearly adjustment of payments is restored and to assure the long-promised progress of physician payments on a UCR basis for physician services necessary to the health of Kentucky's indigent citizens, and be it further

RESOLVED; that the KMA Board study with the Secretary of the Department for Human Resources methods of improving communication between physicians and the Medicaid Program and the Department for Human Resources to allow increased and effective input by physicians, and be it further

RESOLVED, that this House of Delegates meet in special adjourned session on April 16, 1981, or sooner, at the discretion of the Board of Trustees, to receive the Board report on these matters, act on Resolution R and other related Medicaid matters at that time, and be it further



Extensive background material dealing with the Medicaid issue was sent to the Delegates weeks before the meeting.



KMA President Frank R. Pitzer, M.D., explained to the KMA House of Delegates background information and preparation leading up to the special meeting.



W. Grady Stumbo, M.D., secretary for the Department of Human Resources, addressed the Special House of Delegates Meeting on April 16.



Robert N. McLeod, M.D., representative to the Medical Assistance Advisory Council, advised the Delegates on the status of the Medicaid Program activities.

RESOLVED, that [original] Resolution R be postponed definitely to the adjourned session.

Doctor Campbell introduced W. Grady Stumbo, M.D., Secretary of the Department for Human Resources, who gave a slide and oral presentation on the history, current problems, and probable future of the Medicaid Program in Kentucky. The Secretary reported that climbing inflation and dwindling resources have placed Medicaid, as well as other state-funded activities, in economic jeopardy. He also stated there is a strong likelihood that the Reagan Administration will impose a cap on the monies given to states for Medicaid, as well as a possible reduction in the total amount appropriated. In addition, he reported that states may be given block grants to operate their Medical Assistance Programs.

Secretary Stumbo announced he was prepared to commit himself and Governor Brown to the formation of a statewide Blue Ribbon Task Force, to include representation by physicians, to make recommendations on how the idea of block grants for Medicaid should be handled.

Doctor Stumbo urged continued physician participation in the Medicaid Program, and related his efforts to implement S.B. 53 passed by the 1980 General Assembly calling for equal payment for physician services regardless of geographic location.

Doctor Crowder thanked Doctor Stumbo for his comments and the cooperation he and his staff have given to KMA in working on this situation, and gave a brief history of the actions of the KMA House of Delegates from 1966 to 1980.

In accordance with the last Resolved in Substitute Resolution R, the Speaker then presented to the House of Delegates the Original Resolution R, and introduced Doctor Dwight L. Blackburn, Chairman of the Board of Trustees, for the purpose of presenting a Substitute Resolution on behalf of the Board of Trustees.

Doctor Blackburn urged the unity of Delegates as called for in a position paper submitted by the Jefferson County Medical Society as follows:

1. That Kentucky physicians stand by their commitment to care for all citizens of Kentucky regardless of their ability to pay, whether or not Medicaid is interjected into the physician-patient relationship;

2. As evidence of this commitment, KMA should continue to encourage physicians of Kentucky to participate in KMAP even though Kentucky physicians in 1980 provided \$12 million in free services to Medicaid patients; and

3. In view of continued support, KMAP not take unfair advantage of physicians who wish to exercise compassion by forcing them to subsidize programs, etc., under the guise of medical care.

Doctor Blackburn then read the following Resolution prepared by the Board of Trustees, and made a motion that it be adopted in lieu of Resolution R introduced during the September, 1980, meeting of the House of Delegates:

Resolution A

WHEREAS, physicians in the Commonwealth have treated patients regardless of their economic status in the time honored tradition of the medical profession, long before the advent of any governmental medical program, and

WHEREAS, KMA has continuously attempted through all appropriate channels to provide significant input into the Program from a standpoint of concern for the current and long-range planning of patient care with little, if any, results, and

WHEREAS, the Kentucky Medical Assistance Program has suffered administrative, economic and depth of coverage shortcomings since its beginning, yet continued the expansion of new covered services which compounded these shortcomings, and

WHEREAS, the current severe financial situation the state now faces has resulted in funding reductions and possible future curtailment of services provided under the Medical Assistance Program which will likely have a notable effect on the medical care available to the indigent population of the state, now therefore be it

RESOLVED, that whether or not the Kentucky Medical Assistance Program exists, and regardless of the difficulties now confronting the Kentucky Medical Assistance Program, the historic commitment of Kentucky physicians to render needed medical care has been and shall continue to be on-going, and be it further

RESOLVED, that KMA urge the Secretary of the Department for Human Resources to accomplish the following objectives with regard to the operation of the Kentucky Medical Assistance Program:

1. Establish and maintain a balanced Medicaid budget;
2. To insure the continuance of good patient care, fund the mandated services at no less than current levels;
3. As funding is available, consider provision of those services optional to state determination on a priority basis;
4. Specifically address those reimbursement inequities that exist in relation to the various providers of services;
5. Conduct an intense review of administrative operations and their costs to determine if appropriate reductions might be realized through use of a private intermediary; and be it further

RESOLVED, that as a result of the ineffectiveness of the current channels of input into the Kentucky Medical Assistance Program, the House of Delegates charge the Board of Trustees to respond to appropriate requests for assistance from the Secretary, Department for Human Resources, utilizing the newly appointed Ad Hoc Committee on Medicaid, and be it further

RESOLVED, that the Board of Trustees will keep KMA members and the House of Delegates informed regarding implementation efforts on all such requests received from the Secretary.

Doctor Blackburn's motion was seconded from the floor. Discussion was heard from several members on the Resolution, and Doctor Albert Joslin called for the question. This was accepted by the Speaker as a motion, seconded, and carried. The motion to adopt Resolution A of the Board of Trustees was then voted upon and passed.

There being no further business to come before the Delegates, Doctor Crowder adjourned the meeting at 11:40 a.m.

Was Your Delegate Present? ROLL CALL 1981 Special House of Delegates KMA Meeting

OFFICERS

Speaker	Bennett L. Crowder, II	Present
Vice Speaker	Peter C. Campbell, Jr.	Present
President	Robert S. Howell	Present
President-Elect	Frank R. Pitzer	Present
Vice-President	*Ballard W. Cassady	Present
	Richard J. Menke	Present
Secretary-Treasurer	*Charles B. Spalding	Present
Delegate to the AMA	S. Randolph Scheen	Present
Delegate to the AMA	David B. Stevens	Present
Delegate to the AMA	Fred C. Rainey	Present
Alternate Delegate to the AMA	Harold D. Haller, Sr.	Present
Alternate Delegate to the AMA	Kenneth P. Crawford	Present
Alternate Delegate to the AMA	Wally O. Montgomery	Present
Alternate Delegate to the AMA	Lee C. Hess	Present

TRUSTEES

District		
First	Wally O. Montgomery	Present
Second	R. J. Phillips	Present
Third	Henry R. Bell	Present
Fourth	Charles B. Spalding	Present
	*Thomas N. Taylor	Present
Fifth	Walter S. Coe	Present
Sixth	Earl P. Oliver	Present
Seventh	William P. McElwain	Present
Eighth	Robert E. Smith	Present
Ninth	Don R. Stephens	Present
Tenth	Richard F. Hench	Present
Eleventh	Dwight L. Blackburn	Present
Twelfth	William T. Watkins	Present
	*Danny M. Clark	Present
Thirteenth	Howard B. McWhorter	Present
Fourteenth	Harvey A. Page	Present
	*Charles G. Nichols	Present
Fifteenth	Donald C. Barton	Present

ALTERNATE TRUSTEES

District		
First	James E. Adams	Present
	*John D. Noonan	Present
Second	Albert H. Joslin	Present
Third	Sam H. Traughber	Present
Fourth	Terrell D. Mays	Present
	*John W. Ratliff	Present
Fifth	Glenn W. Bryant	Present
Sixth	L. Martin Wilson, Jr.	Present
Seventh	Cecil D. Martin	Present
Eighth	William R. Yates	Present
Ninth	R. Kendall Brown	Present
Tenth	Colby N. Cowherd	Present
Eleventh	Don E. Cloys	Present
Twelfth	Danny M. Clark	Present
	*David C. Liebschutz	Present
Thirteenth	Ranjit Sinha	Present
Fourteenth	Jerry D. Fraim	Present
	*Roger D. Akers	Present
Fifteenth	Emanuel H. Rader	Present

PAST-PRESIDENTS

Past-President	Carl Cooper, Jr.	Present
Past-President	John P. Stewart	Present
Past-President	Paul J. Parks	Present
Past-President	David A. Hull	Present
	Hoyt D. Gardner	Present
*1981 Officers		

DELEGATES

FIRST DISTRICT

BALLARD	Hal Houston	Present
CALLOWAY	Gary Marquardt	Present
CARLISLE		
FULTON	C. Douglas LeNeave	Present
GRAVES	Henry Viles	Present
	John W. Brazell	Present
HICKMAN	Stephen Burkhardt	Present
LIVINGSTON	John Kraus	Present
MCCRACKEN	John Noonan	Present
	R. W. Robertson	Present
	W. Eugene Sloane	Present
	Ben Taylor	Present
MARSHALL	Keith E. Ellis	Present

SECOND DISTRICT

DAVIESS	James A. Baumgarten	Present
	Garry Binegar	Present
	Albert H. Joslin	Present
	R. John Sanders	Present
HANCOCK		
HENDERSON	Kenneth M. Eblen	Present
	John McClellan	Present
MCLEAN	Hugh H. Wilhite	Present
OHIO	Robert E. Norsworthy	Present
UNION		
WEBSTER		

THIRD DISTRICT

CALDWELL	N. H. Talley	Present
CHRISTIAN	Bennett L. Crowder, II	Present
	James F. Rozelle	Present
	William C. Young	Present
CRITTENDEN		
HOPKINS	W. R. Alexander	Present
	R. K. Bachman	Present
	C. R. Dodds	Present
LYON	R. W. Hodge	Present
MUHLBERG	James S. Brashear	Present
TODD	Henry R. Bell, Jr.	Present
TRIGG	Delmas M. Clardy	Present

FOURTH DISTRICT

BRECKINRIDGE	W. Bruce Hamilton	Present
BULLITT	Joseph Lee	Present
GRAYSON	Robert L. Shuffett	Present
GREEN		

HARDIN	William Carney	Present	CAMPBELL-KENTON	Gordon W. Air	Present
HART	Wreno M. Hall	Present		Richard Allnutt	Present
LARUE	Clem Nichols	Present		Carl John Brueggmann	.....
MARION				Frank Garamy, Jr.	Present
MEADE	John W. Ratliff	.....		Thomas Heavern, Jr.	Present
NELSON	Michael C. Hess	Present		Howard A. Heringer, Jr.	Present
TAYLOR	Eugene H. Shively	.....		William B. Monnig	Present
WASHINGTON	Dixie E. Snider	Present		Fred A. Stine	Present
				Raymond J. Timmerman	.....
FIFTH DISTRICT			NINTH DISTRICT		
JEFFERSON	Hugh P. Adkins	.....	BATH	A. V. Echiverri	.....
	Richard Allen	Present	BOURBON	Milton Brindley	.....
	Robert E. Arnold	.....	BRACKEN	Glenn R. Womack	.....
	David H. Bizot	Present	FLEMING	A. C. Wright	Present
	Alan Bornstein	.....	HARRISON	Claude Cummins	Present
	Joseph R. Bowling	.....	MASON		
	Charles M. Brohm	Present	NICHOLAS	Robert L. McKenney	.....
	W. Cooper Buschemeyer, Jr.	Present	PENDLETON		
	E. Dean Canan	Present	ROBERTSON	Robert Kendall Brown	Present
	Alvin M. Churney	.....	SCOTT		
	Walter S. Coe	Present			
	Ronald N. Collier	Present	TENTH DISTRICT		
	Donne O. Demunbrun	Present	FAYETTE	M. Cary Blaydes	Present
	Bob M. DeWeese	Present		P. P. Bosomworth	.....
	Leonard A. Goddy	.....		Walter R. Brewer	.....
	Robert R. Goodin	Present		W. L. Burke	Present
	Larry P. Griffin	Present		D. Kay Clawson	Present
	Walter I. Hume, Jr.	Present		M. L. Dillon	Present
	Jerome P. Lacy	Present		Glenn U. Dorroh	Present
	Theodore Lynch	Present		Harold T. Faulconer	.....
	James P. Moss	Present		Ward O. Griffen	.....
	Michael D. Needleman	.....		Allen E. Grimes, Jr.	.....
	Robert A. Noel	Present		Ardis Hoven	.....
	Robert L. Nold, Sr.	Present		Thomas M. Jarboe	Present
	Lynn L. Ogden	Present		V. R. Jenkins	Present
	Hobert L. Pence	.....		Edgar McGhee	Present
	C. Kenneth Peters	.....		Franklin B. Moosnick	.....
	Henry W. Post	Present		Charles H. Nicholson	Present
	C. Ray Potts	.....		Edwin J. Nighbert	.....
	K. Thomas Reichard	.....		John D. Perrine	.....
	William T. Ramage	.....		E. C. Seeley	.....
	Judah L. Skolnick	Present		John E. Trevey	Present
	John S. Spratt	Present	JESSAMINE	Phyllis J. Corbitt	.....
	T. Bodley Stites	.....	WOODFORD	Norman Fisher	Present
	Daniel A. Tobin	Present			
	Sam D. Weakley	Present			
	A. Franklin White	Present			
	Walter H. Zukof	Present			
SIXTH DISTRICT			ELEVENTH DISTRICT		
ADAIR	M. C. Loy	.....	CLARK	Phillip Curd	.....
ALLEN	Earl P. Oliver	Present	ESTILL	Arnold Taulbee	.....
BARREN	Howard L. Edgin	.....	JACKSON	Don E. Cloys	Present
	Daryl P. Harvey	Present	LEE	John M. Johnstone	Present
BUTLER	Richard T. Wan	.....	MADISON		
CUMBERLAND	Sam Rice	.....		
EDMONSON			MENIFEE	Harold Gillispie	.....
LOGAN	C. V. Dodson	Present	MONTGOMERY	Mildred B. Gabbard	.....
METCALFE			OWSLEY		
MONROE	James E. Carter	.....	POWELL	Paul F. Maddox	.....
SIMPSON	J. Michael Pulliam	Present	WOLFE		
WARREN	John Downing	Present			
	Russell Rothrock	.....		
	Nelson B. Rue	Present			
SEVENTH DISTRICT			TWELFTH DISTRICT		
ANDERSON	Boyd Caudill	.....	BOYLE	Elmer H. Jackson	Present
CARROLL	Cecil D. Martin	Present		David C. Liebschutz	Present
FRANKLIN	Harry Cowherd	Present	CASEY	Lewis E. Wesley	Present
	David Douglas	Present	CLINTON	Floyd B. Hay	Present
	Willett H. Rush, Jr.	Present	GARRARD	Paul J. Sides	Present
			LINCOLN	Charles C. Crase	Present
GALLATIN	Darl B. Shipp	.....	MCCREARY	Jerold Burgess	.....
GRANT	Robert L. Houston, Jr.	Present	MERCER	Bacon R. Moore, III	Present
HENRY	Robert Wellman	.....	PULASKI	Veryl Frye	Present
OLDHAM				Richard H. Weddle	Present
OWEN			ROCKCASTLE	George W. Griffith	.....
SHELBY	Willis P. McKee	Present	RUSSELL	James E. Monin	.....
SPENCER	William K. Skaggs	.....	WAYNE	William M. Selvidge	.....
TRIMBLE	Carl Cooper, Jr.	Present			
EIGHTH DISTRICT			THIRTEENTH DISTRICT		
BOONE	Harold Markesbury	Present	BOYD	Walter L. Cawood	.....
	James A. Zalla	Present		John W. Harrison	.....
				Wayne Franz	.....
				J. E. Moore	.....
			CARTER	W. H. Matthew	.....
			ELLIOTT	Brown L. Adkins	.....
			GREENUP	John Jones	Present
			LAWRENCE		
			LEWIS	Jack Silvers	Present
			MORGAN	Billy Joe Stamper	.....
			ROWAN	David L. Harris	.....
				Ranjit Sinha	Present

FOURTEENTH DISTRICT

BREATHITT	Robert E. Cornett	.....
FLOYD	Roger D. Akers	Present
	Charles Hieronymous, Jr.	Present
JOHNSON	Joseph H. Rapier, Jr.	.....
KNOTT	Denzil G. Barker	.....
LETCHER	Arthur Nash	.....
MAGOFFIN		
MARTIN	Raymond D. Wells	.....
PERRY	Donnie Spencer	.....
PIKE	Ron Hall	.....
	Charles G. Nichols	Present

FIFTEENTH DISTRICT

BELL	Talmadge Hays	.....
	Charles Moore	Present
CLAY	W. E. Becknell	.....
HARLAN	Milo Schosser	Present
	Paul M. Walstad	Present
KNOX	Rogelio A. Acosta	Present
LAUREL	William D. Pratt	Present
LESLIE	Anne A. Wasson	Present
WHITLEY	R. D. Pitman	Present
	Carmel Wallace	Present

The information in the Roll Call was taken from the attendance record cards signed by the delegates prior to the meetings of the House, April 16.

Members in the News

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

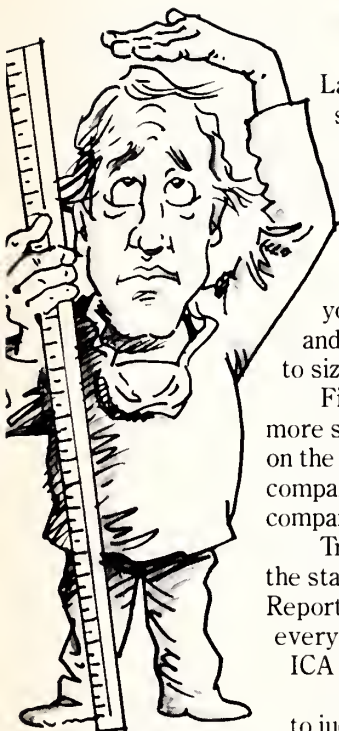
Magdy Abaskaron, M.D., Louisville
 Harry E. Altman, M.D., Pikeville
 William B. Cook, M.D., Prestonsburg
 Darryl L. Dochterman, M.D., Lexington
 James A. Ewing, M.D., Campbellsville
 Muharrem Gultekin, M.D., Louisville
 Walter D. Harris, M.D., Lexington
 Edward G. Houchin, M.D., LaGrange
 Jean Kawerk, M.D., Fort Thomas

William L. Miller, M.D., Greenville
 Michael D. Needleman, M.D., Louisville
 Karl M. Neudorfer, M.D., Ashland
 William N. Offutt, M.D., Lexington
 M. David Orrahood, M.D., Owensboro
 R. J. Phillips, M.D., Owensboro
 Jerry R. Smith, M.D., Hodgenville
 Cecil E. Taylor, M.D., Manchester
 Frederick N. Webber, M.D., Louisville

IN MEMORIAM**JAMES O. NALL, M.D.****1897-1981****Owensboro**

James O. Nall, M.D., died April 1, at his home. Doctor Nall was a 1925 graduate of the Washington University School of Medicine. He was a general practitioner and had been a member of KMA since 1934.

MYTHS, HALF TRUTHS, FINALLY THE TRUTH MALPRACTICE



Lately, a great deal of misinformation has been circulated on the subject of professional liability insurance. At ICA we think it's time you got the facts.

JUDGING AN INSURANCE COMPANY BY ITS SIZE IS LIKE CHOOSING A DOCTOR BY HIS HEIGHT.

Big is not automatically better. Contrary to what large insurance companies would like you to believe, financial stability, experience, and quality coverage are totally unrelated to size.

First, greater size does not make a company more stable. Insurance companies are regulated on the amount of risk they may assume. A large company's ratio of risk to assets is identical to a small company's.

True measure of a company's stability comes from the state regulatory boards and "Best's Insurance Reports." ICA has met the rigid state requirements in every market where we've applied. And "Best's" has given ICA an exceptionally good policyholders' rating.

So don't be fooled by big boasts. There are better ways to judge a company. Look for experience. But make sure it's experience that counts. A huge company's years devoted to car and accident insurance won't help. Medical malpractice insurance is totally different.

At ICA we know. Professional liability is our field. Over the years we have consistently offered the strongest possible benefits combined with the highest standards for the professional handling of claims.

HOW A TORNADO IN TULSA CAN SEND YOUR MALPRACTICE RATES THROUGH THE ROOF.

Insuring with a large company has its hazards. Like tornados or floods. You see your rates may not be set just by your coverage. When a big company has a big loss, *all* their policies help pay.

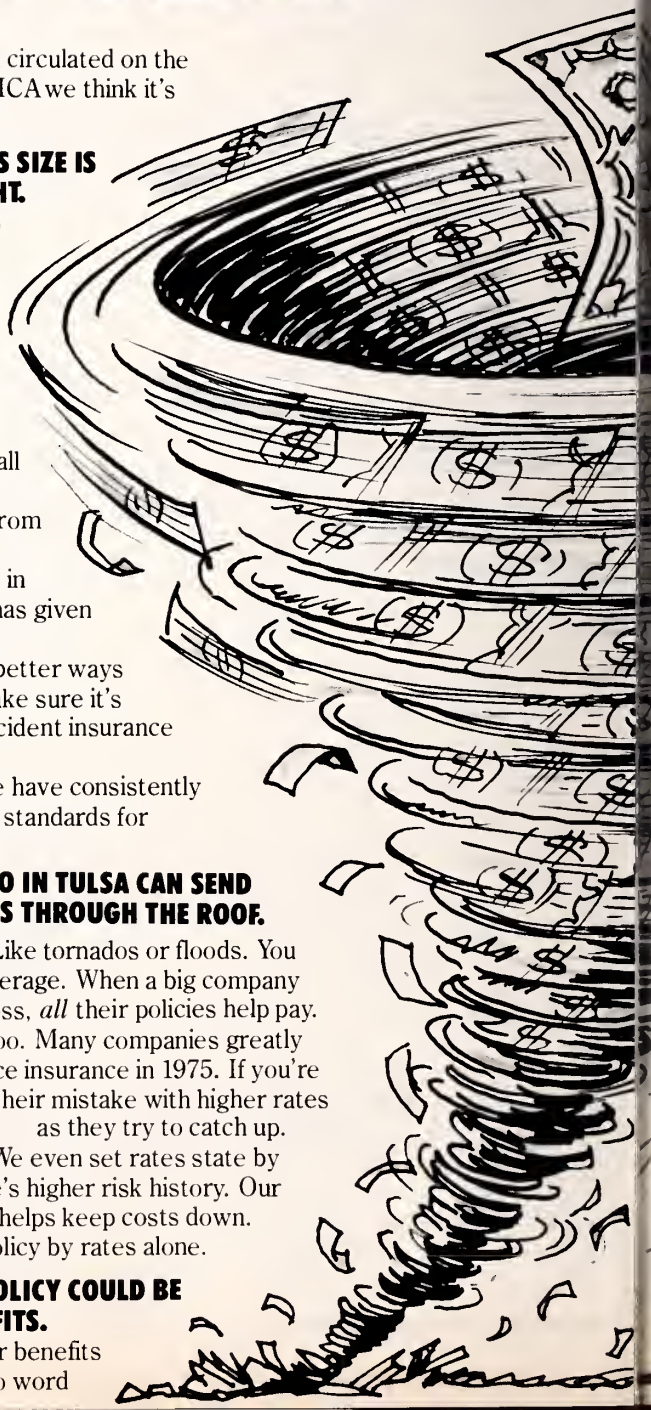
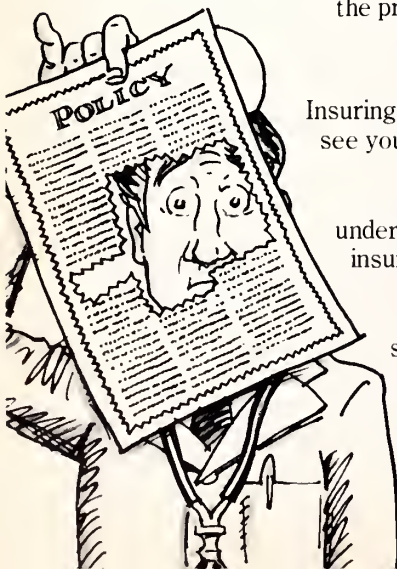
Higher rates happen another way, too. Many companies greatly underestimated the cost of writing malpractice insurance in 1975. If you're insured with them today, you're paying for their mistake with higher rates as they try to catch up.

At ICA our rates reflect true costs. We even set rates state by state. So you don't pay for another state's higher risk history. Our strong handling of frivolous claims also helps keep costs down.

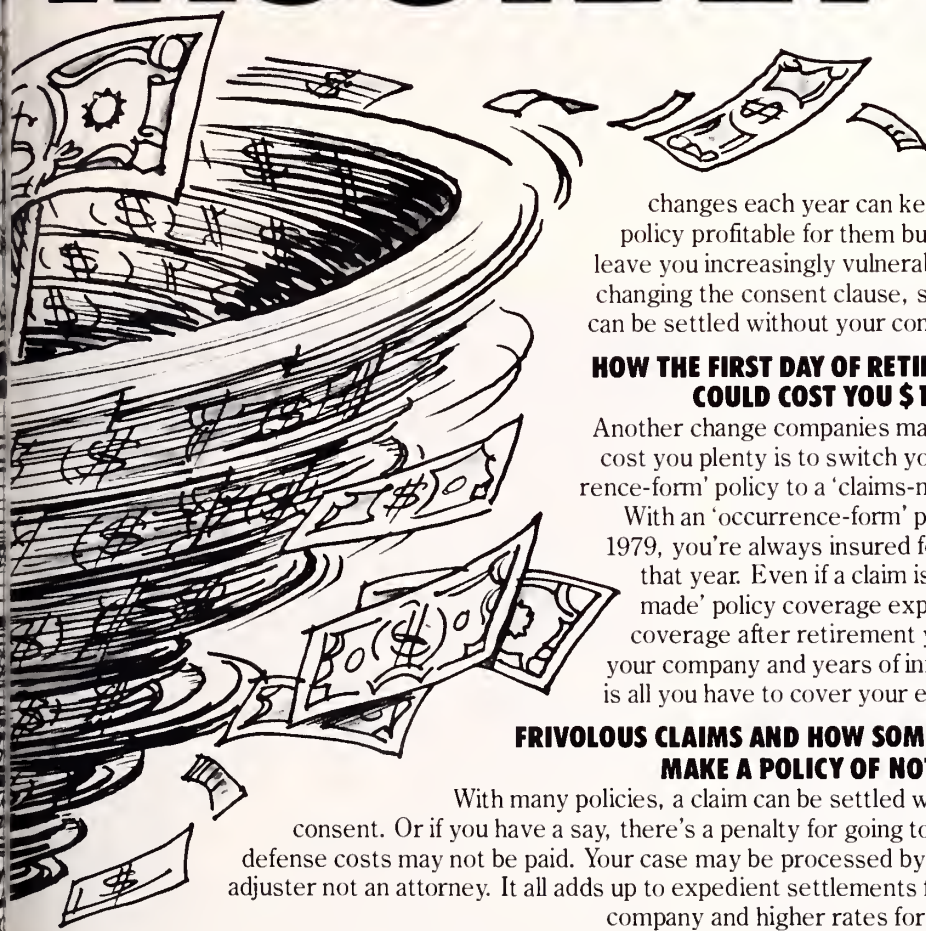
But don't judge a policy by rates alone.

HOW RENEWING THE VERY SAME POLICY COULD BE GIVING YOU VERY DIFFERENT BENEFITS.

Do your rates stay the same while your benefits shrink? At some companies one or two word



TRUTHS, AND FACTS ABOUT INSURANCE.



changes each year can keep a policy profitable for them but can leave you increasingly vulnerable. Like changing the consent clause, so a claim can be settled without your consent.

HOW THE FIRST DAY OF RETIREMENT COULD COST YOU \$100,000.

Another change companies make that can cost you plenty is to switch your 'occurrence-form' policy to a 'claims-made' one.

With an 'occurrence-form' policy in say 1979, you're always insured for claims related to that year. Even if a claim is made in 1999. With a 'claims-made' policy coverage expires completely if you fail to renew. To keep coverage after retirement you may have to pay an exorbitant fee set by your company and years of inflation. And the limited coverage it buys you is all you have to cover your entire career.



FRIVOLOUS CLAIMS AND HOW SOME COMPANIES MAKE A POLICY OF NOT FIGHTING.

With many policies, a claim can be settled without your consent. Or if you have a say, there's a penalty for going to court. All defense costs may not be paid. Your case may be processed by a claims adjuster not an attorney. It all adds up to expedient settlements for the company and higher rates for you.

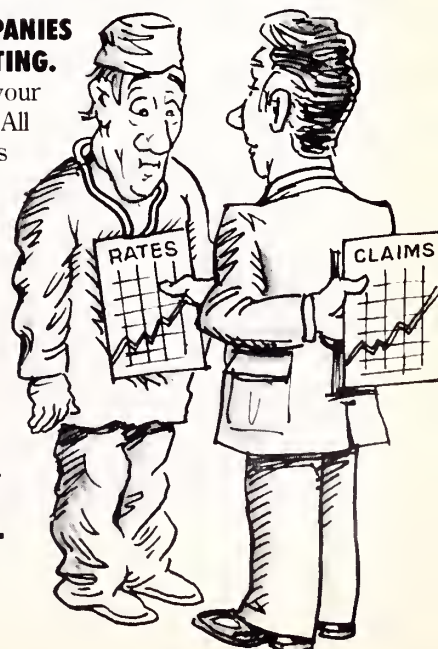
At ICA policies are designed to protect you. Tough, professional handling of claims guards your reputation and helps keep costs down. Ours and yours. At ICA we can offer what others can not. Because we are a doctor and attorney owned company that specializes solely in professional liability insurance. Our background and dedication to this one field have allowed us to both know its needs and know how to meet them.

For more facts, contact: Insurance Corporation of America, ICA Center, 4295 San Felipe, Box 56308, Houston, Texas 77027. 1-800-231-2651. In Texas 1-800-392-9702.

ICA

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Synergy in Leadership

On April 1-2, 1981, the Kentucky Medical Association sponsored the **Synergy In Leadership** Conference in Louisville. The Conference featured outstanding leaders and speakers from throughout the United States.

Tom E. Nesbitt, M.D.—Past President of the American Medical Association—Keynoted the Conference on April 1, 1981. Doctor Nesbitt discussed various social and economic changes that would affect physicians' practice in the coming decade and urged physicians to carefully review the GMENAC Report before drawing conclusions.

James P. Low, CAE—President of the American Society of Association Executives—was the featured

luncheon speaker and discussed the Association role in motivating membership to enable the Association to utilize its fullest potential.

Frank R. Pitzer, M.D.—President of the Kentucky Medical Association—In opening the morning session he urged members to become actively involved in the legislative and regulatory activities of their communities and state.

David Stewart, M.D.—Chairman of the Committee on Physicians Health—explained the Committee's role in assisting physicians and how individuals or society can utilize the Committee.

B. J. Anderson—Assistant General Counsel for the American Medical Association—briefed Kentucky



James P. Low, CAE



David Stewart, M.D.

physicians on the activities of the Federal Trade Commission and summarized several pending legal actions in which the American Medical Association is involved. Research Analyst, **Morton Marcus**, analyzed past and proposed economic policies of the federal government and pointed out that individuals as well as government and industry need to show restraint during this turbulent period.

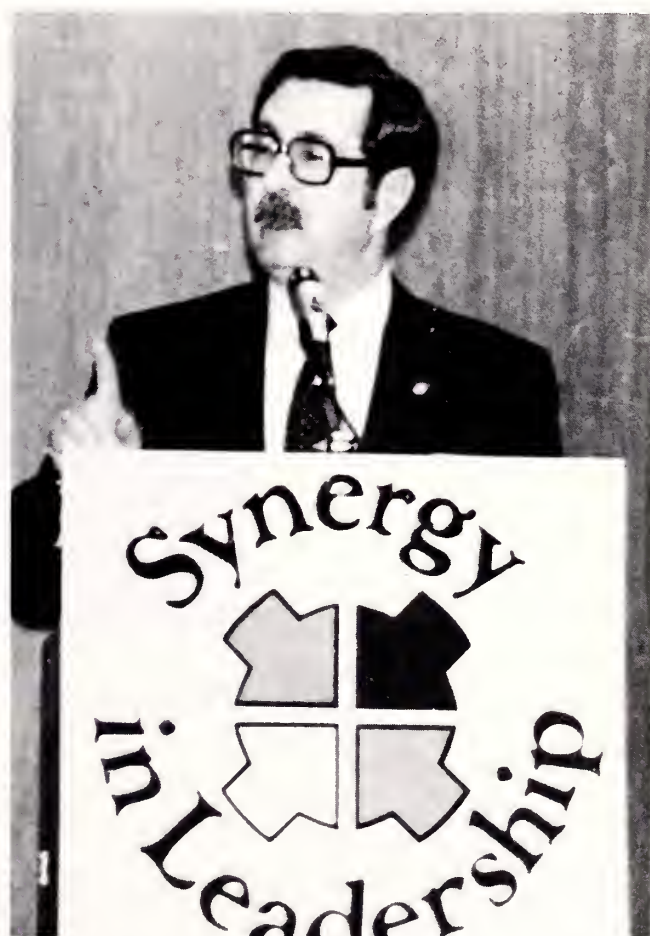
Senator John Trevey, M.D., and Speaker of the House **William Kenton** outlined the political process and how physicians could more effectively influence legislation. A legal panel moderated by the KMA General Counsel **Carl Wedekind** with panelists **Frank Dohney, J.D.**, **Alex Rose, J.D.**, and **B. J. Anderson,**

J.D., reviewed current medical-legal problems including Peer Review, Professional Liability and the effects of FTC decisions.

Randolph Scheen, M.D., and **James Keelor**, President and General Manager of WAVE TV, discussed media relations and the responsibilities of both the physician and the reporter on medical issues of public interest. Secretary for the DHR, **Grady Stumbo, M.D.**, reviewed current and future practices of the Department and in particular budgeting restraints that will provoke changes in programs in the future. Finally, **Tony Goetz**, spoke on health planning and the probable impact of current policies of the Reagan administration and their effect on the health planning process.



John Trevey, M.D.



Frank R. Pitzer, M.D.



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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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As a result of some interest expressed by individual members, as well as considered policy changes by the Board of Trustees, an Ad Hoc Coordinating Committee on Peer Review was appointed. The purpose of the Committee was to review the peer review system, and consider and recommend changes and streamlining steps. The Ad Hoc Committee developed the following information which describes the KMA peer review system in its entirety. This material was approved by the Board and is being offered here for the benefit of the membership.

Summary Description Of Components Of The Peer Review System

The KMA Peer Review System consists of judicial and grievance committees, peer review or claims and utilization review committees and committees on physicians' health. These groups were established to satisfy questions of ethics and conduct, deal with disputes between physicians, disputes between physicians and patients, disputes between physicians and medical care payors and to identify and aid physicians with impairments.

Each component was created to deal with a specific area of physician activities. Matters identified in one area may more appropriately be handled by one of the other components or by more than one group simultaneously. The functions of each group are important individually, but coordination of the inter-relationship between all is vital.

At the state level, the KMA Judicial Council considers matters involving ethics and conduct, and grievances; the Claims and Utilization Review Committee deals with matters involving physicians fees and medical practice; and the Committee on Physicians' Health deals with situations involving physician impairments.

COMPONENTS OF THE SYSTEM AND THEIR FUNCTIONS

JUDICIAL COUNCIL

Through the Constitution and Bylaws, precedent situations, traditionally held principles and other appropriate documents, establish guidelines and render opinions regarding appropriate conduct and ethics of members.

Subcomponents

County society judicial councils or grievance committees—appointed through a mechanism of the coun-

ty societies. Function utilizing self-development guidelines. It may not be feasible for all counties to develop such groups. Both judicial and grievance functions can be undertaken by the same group, or two separate bodies.

District grievance committees—appointed by the KMA Judicial Council to consist of the Trustee of the District concerned and Trustees from two adjoining Districts. Activated when the individual Trustee can't resolve a grievance. District Committees report to the KMA Judicial Council if the grievance is without merit and report all actions taken otherwise.

KMA Judicial Council—a five-man body which includes the KMA Secretary-Treasurer and is appointed by the House of Delegates. Acts as a final arbiter of questions involving rights of members in relation to other members, county societies and KMA. No report or opinion of the Judicial Council becomes Association policy until approved by the House of Delegates.

AMA Judicial Council—appointed by the AMA House of Delegates.

Procedures

Grievances, questions of ethics or conduct must be given to the Judicial Council in writing. Grievances may be filed by individual physicians, hospital staffs, insurance carriers or payors, patients, individual citizens or outside organizations.

When a grievance is received, it is referred to the appropriate Trustee. The Trustee may refer it to a county judicial council or grievance committee for action. Where none exists, the Trustee investigates the matter for validity and attempts to resolve it firsthand, or reports his findings to the KMA Judicial Council. The KMA Council may then refer the matter to a District Grievance Committee, when appropriate, or undertake it directly. No recommended disciplinary action recommended by a District Trustee or District

Grievance Committee is to become effective unless approved by the KMA Judicial Council. All reasonable steps are to be taken by the Council to insure that all parties to a grievance have adequate opportunity to express themselves, including conduct of hearings and representation by legal counsel and other due process procedures.

Affected physicians may appeal disciplinary orders from county societies to the KMA Judicial Council. The KMA Council's decisions shall be final.

Members affected by disciplinary rulings may appeal these findings to the AMA Judicial Council. In those situations requiring a determination of proper conduct or ethics that constitute singular questions and do not directly involve an individual, the Council will render an opinion, based on any precedent, traditionally held principles and other appropriate resources.

Possible Actions by the Judicial Council

- Find a grievance to be groundless.
- Arbitrate and try to resolve grievances between physicians, physicians and patients, hospital staffs and others.
- Depending on the circumstances and observing due process procedures, censure, fine, suspend or expel a member.
- Refer matters to other components of the system.
- In situations which may pose questions of legal improprieties, refer matters to the Board of Medical Licensure.
- Patient complaints concerning simple questions of fees are referred initially and informally to the peer review component. The attending physician is contacted for any comments he might like to make regarding the complaint and this response, together with any available medical records, is informally considered by the appropriate specialty consultant of the state peer review committee. If the consultant feels the fee is within a range of reasonable fees for the procedure performed, the complainant and the physician are both so advised. If the fee is considered excessive, the matter is then referred back to the Judicial Council for further discussion with the attending physician.

PEER REVIEW

Adjudicate questions of physicians' fees, utilization of services, necessity of hospital admissions and lengths of stay, and practice patterns relating to quality of care.

Subcomponents

Hospital—(local) peer review committees—appointed by hospital medical staff to fill Medicare, and

other requirements. May perform other, third party review. Not appointed by KMA, so there is no formal relationship. Claims review assignment is at the discretion of the District Peer Review Committee chairman or carrier for claims sent directly to KMA.

County Society Peer Review Committees—Appointed through a mechanism developed by the county society. Claims sent to KMA are referred directly to counties.

District Peer Review Committees—Appointed by the Trustee. Membership should reflect appropriate specialty mix and county and physician population representation.

Claims and Utilization Review Committee—A standing Committee appointed by the Board of Trustees. Membership chosen to reflect all specialties, proportionately, and geographic representation of the state. Prior work with a local committee is desirable. CURC acts as administrative head of the peer review system.

Procedures

Claims Initiation—Accomplished by attending physician, a third party payor, insurance company, self-insured group or governmental medical care program administrative agency.

Claims Processing—A minimum of 10 copies of a claim to be reviewed is submitted to the Headquarters Office and then mailed directly to the appropriate committee members, individually. At the discretion of the local Committee chairman, a meeting is called, which should include input by the attending physician. The Committee's recommendation is forwarded to the Headquarters Office, which in turn, notifies the carrier. The District Committee usually will notify the attending physician of its decision. Any party to the review may request appellate review at the next level if the Committee recommendation is unsatisfactory.

Attending physicians are notified of the claim submission. Attendance at the meeting by the attending physician and notification of the Committee's recommendation are desirable, but left to the discretion of the local Committee. Both of these actions are formal procedures of the CURC, as is notification of the District Committee Chairman and Trustee both of the claim submission and the CURC recommendation, if different from that of the local Committee.

Carrier representatives are also required to attend meetings of the CURC, where the case is discussed with both the attending physician and the carrier. CURC recommendations are arrived at in private session.

Possible Recommendations by the Peer Review Committee

- Affirm the physician's fee, services provided, admission of patient, length of stay and practice patterns.
- Recommend a reduced fee or non-payment of fee charged; partial allowance or disallowance of payment for services provided otherwise; partial allowance of hospital stay or disallowance of admission; and question or advise the attending physician on practice patterns. In the case of government medical care programs, suspension from participation or on-going review can be recommended.
- Referral to one of the other components of the KMA system.
- Challenge question or recommend change to the procedures used by the payor either directly or through the Board of Trustees.

COMMITTEE ON PHYSICIANS' HEALTH

Helps to identify physicians with impairments of a nature that affects their medical practice and private lives; helps the physician confront his problems; assists in rehabilitation and resumption of a productive life.

Subcomponents

Local physicians' health committees—appointed through a mechanism of the county medical society.

KMA Committee on Physicians' Health—Appointed by the Board of Trustees to consist of members who have had first-hand experience with physician impairments, either as formerly impaired individuals, or as attending physicians.

Procedures

Procedures followed are guidelines only, as each situation usually requires individual consideration. General procedures are that physicians with suspected impairments are reported to the Headquarters Office or a member of the Committee whose names and addresses are published periodically in the *Journal*. This reporting can be done anonymously. Confirmation of the impairment is sought by the Chairman or one of the members through contacts with Trustees, local colleagues or personally. Once an impairment is confirmed, the physician is confronted for discussion, to confirm the impairment and to seek self-admission of the problem. If no life-threatening circumstances are apparent, a process of treatment and possible rehabilitation is begun, which includes the assistance of colleagues, family and treating physician. In this process the Committee has access to individual physicians with expertise in the field, as well as noted institutions. In the event that a life-threatening circumstance is

encountered, immediate steps are taken to cease the physician's practice and begin immediate treatment. In the event that a local committee exists, the KMA Committee defers to it or works in conjunction with it at the local committee's request.

Possible Actions

The Committee has no punitive authority, nor was it established to exercise any. All actions taken are of a benevolent nature, with the intent to assist the impaired physician. All activities must be agreed to voluntarily by the impaired physician, with the exception of life-threatening circumstances, which are the purview of the Board of Medical Licensure. The Committee works in loose concert with the Licensure Board and reports informationally to the Judicial Council.

Coordination of the activities of these groups is provided by the Peer Review Council, whose members are the Chairmen of the KMA Judicial Council, KMA Claims and Utilization Review Committee and Committee on Physicians' Health, as well as the Vice Speaker of the House of Delegates and a member of the Board of Trustees. The referral of any matter involving physicians' activities is decided by this group, which also coordinates any interrelated activities. In the event that a matter referred to KMA does not appropriately fall within the responsibility of any of the components, the Council further refers the matter to the Board of Trustees or the Board of Medical Licensure, as appropriate. This applies to both physician-initiated and non-physician initiated situations.

While the peer review system has sanctionary aspects, it is most important to note that its activities employ an equal advocacy mechanism for members to seek regress and resolution of problems encountered with other members and external groups.

The ultimate goal of peer review is to educate and rehabilitate—not to punish. This goal must be weighed by the facts and consideration of the protection of society as a whole and as individuals. The value of improving the performance of an errant colleague is worth far more to society, to the profession and to the individual physician, than any punitive action which reflects on the entire profession.

University of Louisville Reunions Scheduled for 1981

All University of Louisville graduating classes ending in "1" and "6" will be celebrating their reunions in conjunction with the Kentucky Medical Association meeting this year. The following reunion chairmen have been selected:

- 1931 William K. Keller
Louisville, KY
- 1951 Homer B. Martin
Louisville, KY
- 1956 William P. VonderHaar
Louisville, KY

If any graduates are planning a reunion or would like to act as chairman for reunion activities, please contact Miss Billie Clary, HSC Relations Office, 114 Carmichael Building, University of Louisville, Louisville, Kentucky 40292, or call 502-588-5783.

Medical Alumni Reception and Information Booth

A University Medical Alumni Reception will be held on Tuesday, September 22, from 5-7:00 pm. A site selection has not been made at this time.

The Alumni Information Booth will be open on Monday, September 21 through Thursday, September 24, to assist alumni in making contact with fellow classmates and for information concerning the University of Louisville School of Medicine.

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid over-sedation. Terminate dosage gradually since abrupt withdrawal of any anti-anxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levaterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan®
for (lorazepam)
Anxiety

Dosage: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

How Supplied: 0.5, 1.0 and 2.0mg tablets.



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No interaction with more than 300 drugs[†]

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Long-acting benzodiazepines have long-acting metabolites with activity which can produce excessive accumulation that may lead to unwanted sedation. Ativan[®] has no active metabolites, reaches steady state in 2 to 3 days and usually does not cause oversedation. Also, the shorter half-life of Ativan is consistent with b.i.d. dosage, so drug hangover is seldom a problem the next morning.



3

Not appreciably affected by aging

Unlike the long-acting benzodiazepines—diazepam [®], chlordiazepoxide [®], clorazepate [®] and prazepam [®]—the metabolism and clearance of Ativan are not appreciably affected by the aging process.



4

Not significantly affected by liver dysfunction

Ativan[®] is metabolized in one simple step to an inactive glucuronide; its absorption and excretion are not significantly altered by cirrhosis or hepatitis. By contrast, the metabolism of diazepam and chlordiazepoxide has been reported to be significantly altered in patients with liver dysfunction.

See important information on following page.

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^{*}Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

[†]All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

[‡]Tagamet (cimetidine) is a registered trademark of Smith Kline & French Laboratories, Division of SmithKline Corporation

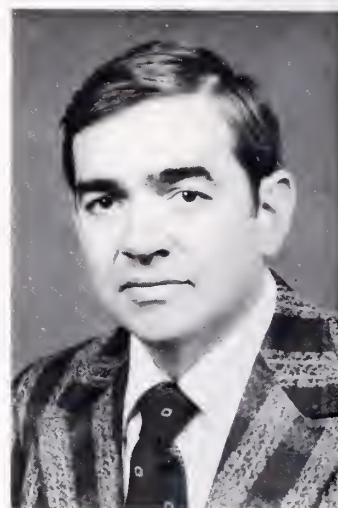
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Report of the 12th Trustee District

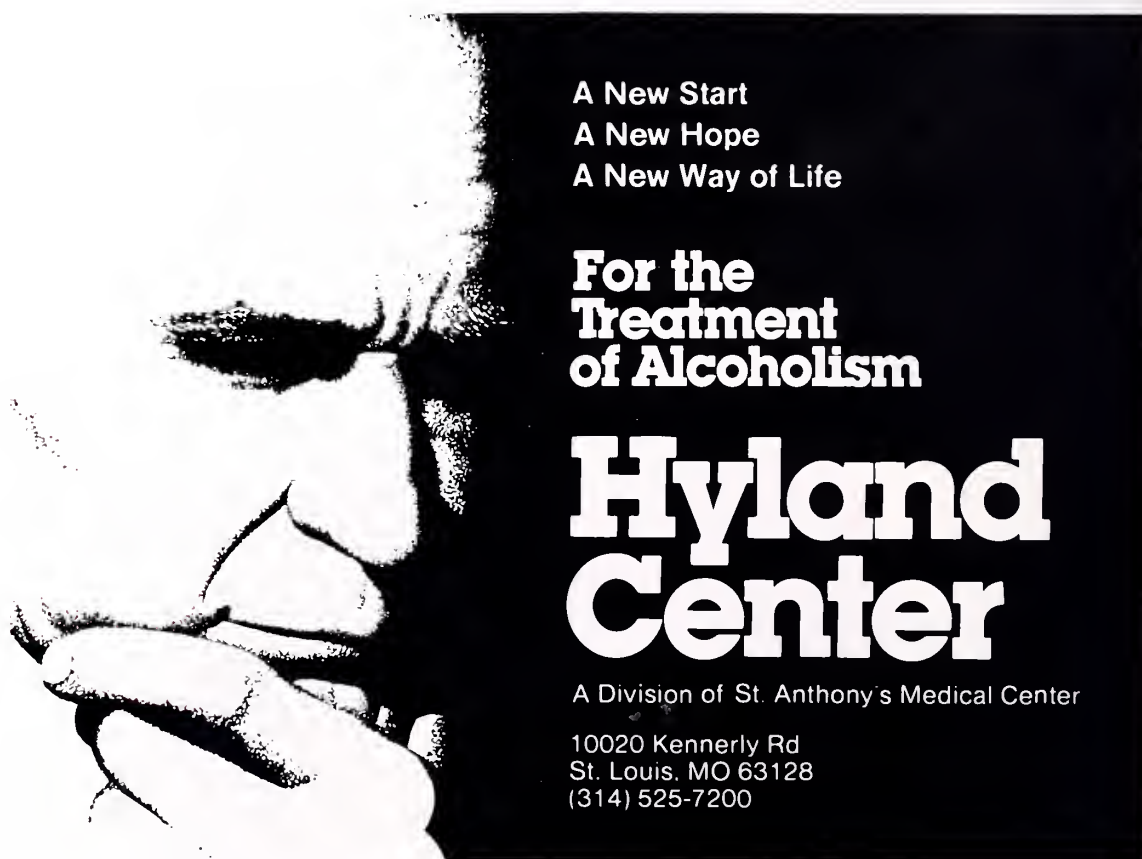
A district trustee's meeting was held Feb. 24, 1981 in Danville at the Holiday Inn in conjunction with the Boyle County Medical Society. Doctor Frank Pitzer discussed current activities and problems with the Kentucky Medical Association in some depth and pointed out quite well that the future and direction of Kentucky medicine was directly related to the amount of energy and work that Kentucky physicians put into their organization. An excellent scientific presentation was then given by Doctor Joseph C. Allegra of Louisville, Kentucky. The organizational efforts of Doctor David Liebschutz and the cooperation and hospitality of the Boyle County Medical Society were greatly appreciated.

At the present time, Doctor Stephen Kelley of Somerset is serving as president of the Kentucky Academy of Family Practice and is to be warmly congratulated for receiving this honor.

Danny M. Clark, M.D.
12th District Trustee



A new forty-five bed hospital will soon open in Russell Springs and the citizens and physicians of that community are to be congratulated for their efforts and dedication in obtaining this facility.



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Digest of Proceedings Board of Trustees April 15, 1981

The KMA Board of Trustees met in special session Wednesday, April 15, 1981, for the primary purpose of finalizing a Resolution regarding Medicaid for introduction into a special meeting of the House of Delegates the following day.

In addition to adopting a Resolution, the Board members appointed an ad hoc committee on Medicaid, and endorsed names that had been submitted to the Department for Human Resources for appointment to a Blue Ribbon Task Force on Medicaid.

Legal Counsel reported on his investigation of legal points raised by an attorney representing three physicians who were contesting review by the Claims and Utilization Review Committee. Acting on advice of legal counsel, the Board reaffirmed its position that the KMA Claims and Utilization Review Committee continue to perform peer review, and respond accordingly to the three physicians.

The Board accepted a report of the Ad Hoc Committee on Regional Health Departments which directed legal counsel to review applicable rules to determine if allocations were being appropriately made to local departments; and if combining local health departments into regionalized health departments required a certificate of need.

The Board of Trustees also voted to contribute \$1,000 to the Kentucky Voluntary Effort Steering Committee for the 1981 calendar year.

The next regularly scheduled meeting of the Board of Trustees was set for August 5-6, 1981.

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Did you know?

Practice expenses and gross income more than doubled during the 1970's with the proportion of practice expenses to gross income rising. These and other changes in average income, expenses, fees, visits, hours worked, and waiting time for the typical office-based U.S. physician are documented by AMA staff and are described in the article, "Physicians' Practice Experience During the Decade of the 1970's." Some other findings are that the average number of patient visits and hours worked per week fell, and that physicians' fees for a follow-up visit rose about 1.0% annually in the 1970's.

Originally published as a special communication in the Dec. 5, 1980, issue of *JAMA*, the article is now available in complimentary booklet form from the Center for Health Services Research and Development, AMA Headquarters.

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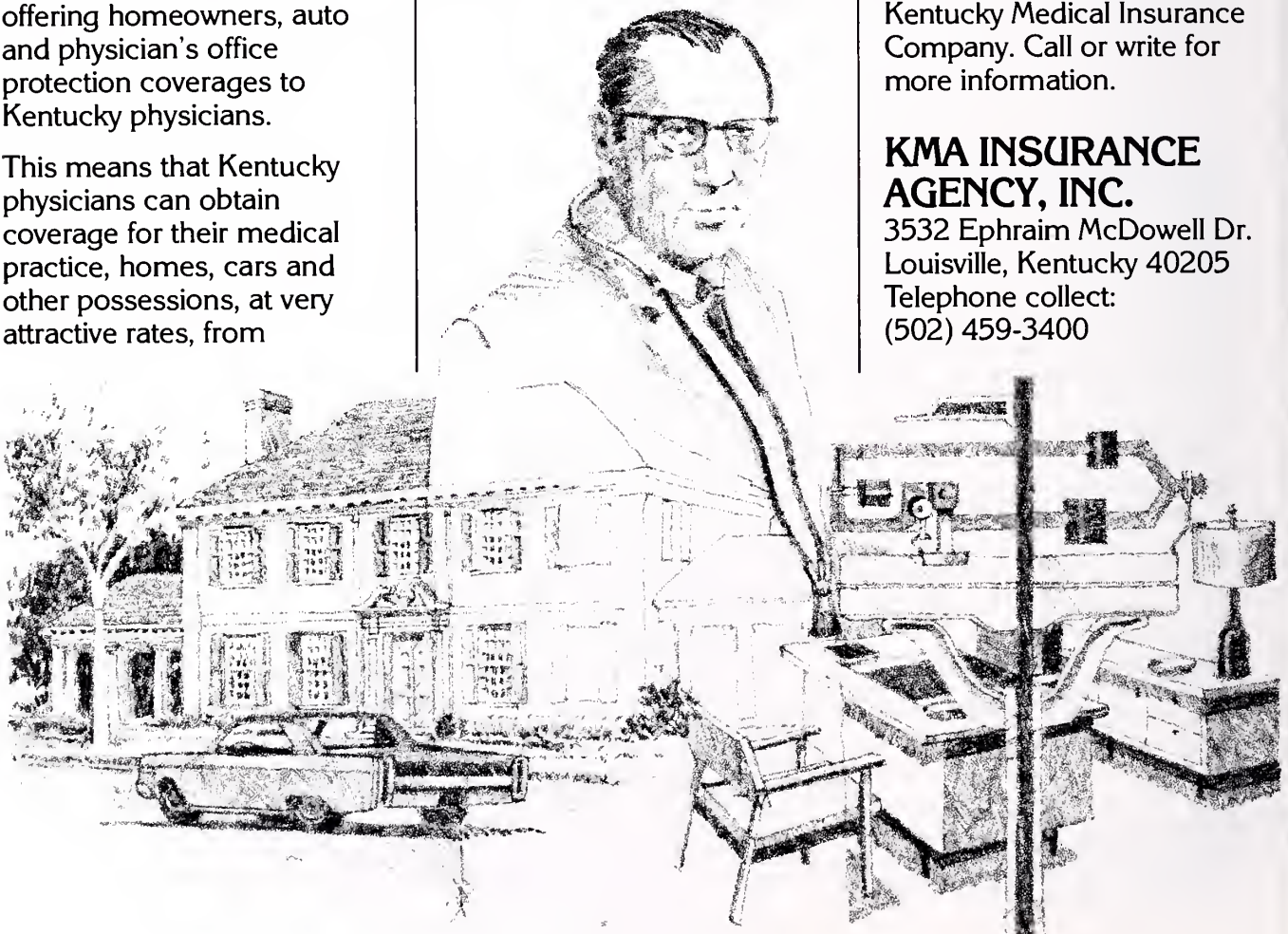
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Headquarters Activity

JUNE

- 7-11 AMA Annual Meeting, Chicago
- 9-11 Emergency Medical Care Seminar, Louisville
- 9 *Journal* Editors, Louisville
- 22-23 KMA Washington Dinner, Washington, D.C.

JULY

- 9 CME Committee
- 14 *Journal* Editors, Louisville
- 15 School Health, Physical Education and Medical Aspects of Sports Committee, Louisville
- 16 Medical Insurance and Prepayment Plans Committee, Louisville
- 16 Physicians Health Committee, Louisville
- 22 Basics in Sports Medicine, Gilbertsville, KY
- 23 Board of Medical Licensure, Louisville

AUGUST

- 5-6 KMA Board of Trustees, Louisville
- 11 *Journal* Editors, Louisville

SEPTEMBER

- 8 *Journal* Editors, Louisville
- 22-24 KMA Annual Meeting, Louisville

TO THE NEW PHYSICIANS:

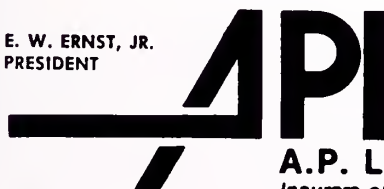
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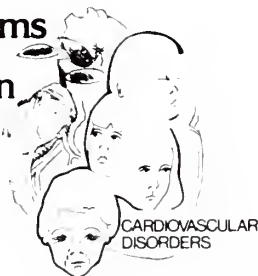
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Problems
in the
Human
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Cycle



CARDIOVASCULAR
DISORDERS



British Urologist is Guest Speaker at KMA Annual Meeting

Richard Turner-Warwick, M.D., British urologist, will be guest speaker Tuesday, September 22, at the KMA Annual Meeting.

Doctor Warwick is well known for his work in urethral structure surgery and urodynamics and his excellent articles in numerous medical journals.

Doctor Warwick's topic will be "Age Related Dysfunction of the Bladder."

The theme for this year's KMA Annual Meeting is "Problems in the Human Life Cycle—Cardiovascular Disorders." Scientific sessions will be held September 22, 23 and 24 at the Ramada Inn/Bluegrass Convention Center, Louisville.

Geriatric Psychopharmacology
Ant Bullous Emphysema
Eosinophilic Pneumonia

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JUL 24 1981

July 1981
Volume 79
Number 7



The Journal Of The Kentucky Medical Association

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JUL 24 1981

Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to decrease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgeable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ©, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

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Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to abuse and dependence.

Use in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500. Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50, available in trays of 10.

Postgraduate Opportunities

JULY

- 22 Basics in Sports Medicine, KenBar Resort, Gilbertsville, KY
- 31-2 E.N.T. Symposium for the Family Physician, The Lodge, Vail, Colorado***

AUGUST

- 10-11 Antibiotic Review-1981, Sheraton Washington Hotel, Washington, D.C.
- 21-22 5th Annual Bethesda Hospital Extra-Capsular Cataract & Implant Seminar, The Westin Hotel, Fountain Square, Cincinnati, OH

SEPTEMBER

- 12 Using Laser in Glaucoma, Vernon Manor Hotel, Cincinnati, OH
- 22-24 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville, KY
- 25-27 Second National Seminar on Community Cancer Care, Hyatt Regency, Indianapolis, IN
- 29-3 5th District Meeting of the American College of Obstetricians and Gynecologists, Hyatt Regency, Lexington

OCTOBER

- 2-4 Midwest Forum on Allergy, Stouffer's Inn, Cleveland, Ohio
- 17 3rd Annual Physicians Recruitment Fair, Ramada Inn/Bluegrass Convention Center, Louisville

DECEMBER

- 10-11 Current Topics in Geriatric Medicine, Duke University, Durham, NC
- 10-12 Current Concepts in Cancer Therapy, St. Louis, MO

*Frank R. Lemon, M. D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506 (606) 233-5161

**For further information contact: Gerald D. Swim, Assistant Dean, Office of Continuing Education, University of Louisville School of Medicine, Louisville 40202 (502) 588-5329

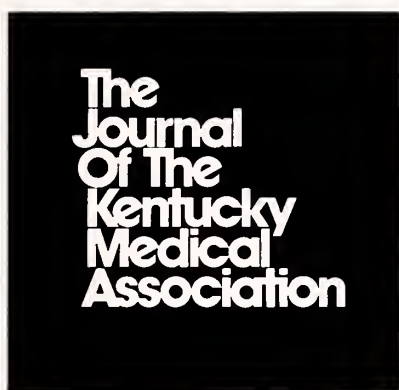
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Double fault for weekend warriors

ACE THE ACHE

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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and on other information, FDA has classified the indications as follows:

"Possibly effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant, they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood and in near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants (e.g. caffeine, Metrazol or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and resumption of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug. Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression including drowsiness and light-headedness with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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Step up to reliable relief

for mild to moderate pain

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More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore propoxyphene should not be used in pregnant women unless in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients. Some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity (jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis and myocardiopathy have also been reported. Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone, naltrexone, and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

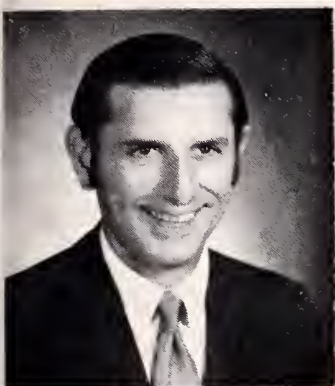
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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PRESIDENT'S PAGE

THE AMA

THE American Medical Association is alive and well. At its Annual Meeting, held June 6-11 in Chicago, Dan Cloud, M.D., of Phoenix, Arizona was installed as President. William Rial, M.D., of Pennsylvania, after eight years as Speaker, was elected President without opposition. His successor as Speaker will be Harrison Rogers, M.D., of Atlanta, Georgia. Reelected to the Board of Trustees were Joseph Boyle, M.D., Los Angeles; Max Cole, M.D., Dallas; William Hotchkiss, Norfolk; and Jack Lewis of Dayton, Ohio. Hoyt Gardner, M.D., Louisville, retired as Immediate Past-President.

Representing Kentucky were David Stevens, M.D., Fred Rainey, M.D., Harold Haller, Sr., M.D., Wally Montgomery, M.D. and Kenneth Crawford, M.D. Doctor Rainey remains on the Council on Legislation and AMPAC Board.

In keeping with the new politics the House of Delegates continued its previous policies of supporting fee-for-service, non-governmental medical practice. Control of medical practice through peer review, establishment of institutional standards for patient care and educational preparation should remain under the direct control and supervision of physicians.

The most pressing problem confronting the AMA at this time is the gradual erosion of membership from 51% of all physicians in 1975 to current 38%. Forty thousand students or house officers have joined in recent years. Their participation in the House of Delegates has been well received. The resolutions, enthusiasm, and intelligent questions generated by these two groups have quickly erased the fears the delegates held when the students and residents were admitted.

The Board of Trustees of the AMA has finally joined the enlarging group who share the growing realization that some changes need to be made. Pursuant to that new attitude, the Board recommended to the House that it amputate the Council on Constitution and Bylaws, Council on Long Range Planning, Council on Continuing Physician Education, cancel the interim meeting, adjust dues for new members and raise the dues for 1982 by \$35 to \$285. The House concurred with the AMA discontinuing preparation and promotion of CME, changing the dues, but rejected the rest of the Board's recommendations.

What of the future? After serving as your delegate through many sessions, I am convinced the AMA can best represent all physicians from all disciplines. No other organization relates to government, JCAH, hospitals, third party groups, etc. and to the public. However, this perception is not sufficiently permissive and persuasive to sustain adequate membership. That is the problem—What is the solution?

David Stevens, M.D.
Senior Delegate to the AMA

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Basic Principles of Geriatric Psychopharmacology

ROBERT P. GRANACHER, JR., M.D.

Treatment of behavioral problems in the elderly patient requires that the physician have a more sophisticated medical and neuropsychiatric knowledge than is generally required for younger patients. Likewise, a more extensive mental status and physical evaluation is necessary before prescribing psychotropic agents. Guidelines are offered for neuropsychiatric examination of the geriatric patient with a behavioral disorder. Basic principles of psychotropic drug management are described.

PSYCHOTROPIC drug treatment of the elderly patient requires a more sophisticated knowledge than treatment of middle-aged persons. The physician must think of the elderly patient as an entirely different biologic creature. In order to properly prescribe psychotropic agents to the elderly, physicians should think of human beings as existing in three major physiologic states during life. The first state is of course childhood, the second is adulthood and the third physiologic state is old age.

The United States, as well as other parts of the western world, are rapidly approaching a potential crisis point in the behavioral management of elderly citizens. In 1975 there were 21 million persons in the United States over age 65 and 27

million over age 60. Significant psychiatric symptoms in this group have been estimated at 20 to 40% of all individuals in the community. For elderly individuals residing in nursing homes, the prevalence of psychiatric symptoms is estimated as high as 62% and upward! Presently, 75% of all nursing home patients receive at least one psychotropic agent.² Thus, the potential for drug interactions with other medications commonly used in treating the many organic problems of the elderly remains high as well.

Approach to the Patient

Before instituting a psychotropic agent in an elderly person, the physician must approach the patient in the same manner as for any other medical dysfunction. Disorders of behavior in the elderly often have diagnosable causes and these

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TABLE 1
Helpful Points in Differentiating Dementia Syndrome of Depression from Dementia in the Elderly¹⁸

	Depression	Dementia
Onset:	Typically acute, recent	Typically insidious
Memory:	Usually no change until symptoms appear	Slowly developing memory decline
Sleep:	Recent onset of middle and terminal insomnia	"Sundowner's syndrome"
Interests:	Change in motivation	Insidious apathy
Sexuality:	Diminished libido	Generally stops sexual activity
Distress:	May communicate distress	Generally shallow emotions
Confabulation:	"I don't know"	May confabulate early in illness
Cognitive:	Preserved areas	Global changes
Losses:	Often losses of spouse, pets, funds, etc.	Not usually a factor
Agitation:	Hand wringing, crying, pacing	Aggressive or assaultive

should be sought before prescribing any type of psychotropic agent. It is much more necessary to speak with family members than is normally done with younger adults. The physician should ask about headaches, nausea or vomiting, changes in balance, the recent onset of seizures and incontinence of urine or feces. A careful inquiry should be made about recent personality changes or abnormal behavioral episodes that are then followed with intervals of normal behavior. It should not be forgotten that many of the elderly have problems with alcohol or sedative hypnotic abuse and these in themselves can cause bizarre presentations of symptoms. Lastly, a thorough medication history should always be obtained in aged patients.³

If the physician is evaluating an elderly person in a general hospital or in a nursing home setting, a significant amount of time should be spent in reviewing the patient's chart. Here one can obtain types of medications used, frequency of dosage and agents that might interact with a prescribed psychotropic agent. Nursing notes should be carefully read in order to determine if there are abnormal instances of behavior, changes in sleep patterns, alterations of consciousness, alterations of orientation and other indicators of some underlying behavioral abnormality. Disruption of sleep is a *sine qua non* of organic mental disorders. If at all possible, nurses and staff members should be interviewed or asked about noticeable aspects of the patient's behavior which interferes with hospital or nursing home function.

Mental Status Examination

The mental status examination in the elderly individual who is to receive psychotropic agents requires a more careful and disciplined approach than is generally done by primary care physicians in younger adult patients. The ordinary items of orientation and ability to abstract information of course must be included. However, with the elderly patient much more careful delineation of the ability to learn new information should be attempted. Ask the person to remember "brown, tulip, honesty and eyedropper" at five minutes. More than one error is unacceptable. Appropriate mental status tests for evaluation of attention should be done. Digit repetition and serial sevens testing are the most practical. Items that will demonstrate the ability to maintain concentration over a fixed period of time in order to determine vigilance can be performed. All other mental status tests are invalid if attention is impaired. One of the most sensitive indicators of underlying organic brain disease is constructional dyspraxia. This is easily evaluated by having the older person draw a three dimensional cube or a Greek cross and other items that require spatial orientation. However, one must determine the visual acuity of the patient or the information could well be invalid. Abnormal responses are loss of third dimensionality, rounding of angles or closing in of the figure. The examiner needs to carefully listen to language for signs of dysphasia such as paraphasic errors or other difficulties with syntax which might indicate cortical dysfunction. It is

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useful to obtain other items of drawing such as asking the patient to draw a clock and place the numbers properly. This might pick up motor perseveration, unilateral neglect or visual field cuts and further enhance the diagnosis of organic brain dysfunction.⁴

Neurological Examination

The neurologic exam has special aspects which should be performed in the aged individual that are not normally done on younger adults. Observations of gait and posture often reveal a flexion attitude or paratonic rigidity, even in those patients without Parkinson's disease but with dementia. The nursing home patient who is found lying in bed with a pelvicular flexion contracture and maintaining a fetal position is often severely demented. Special "soft neurological" reflexes should be determined. Examination for evidence of a grasp reflex of the hand or a tonic foot response obtained by pressing briskly in the center of the sole of the foot should be performed. Stroking the lateral aspects of the upper lip should be done to determine whether a snout reflex is present. The thenar eminence of the hand can be stroked 10 times on each side while the ipsilateral mentalis muscle is observed. If more than four or five responses out of 10 show the mentalis muscle to twitch this could be indicative of frontal lobe disorders. Likewise, when testing the corneal reflex one should carefully watch the angle of the jaw on the contralateral side to observe for deviation lateral, forward and downward. This indicates a positive corneo-mandibular reflex and may be the most revealing of "soft neurological" signs. Brisk tapping over the glabella will often reveal motor impersistence as the patient will continually blink his eyes rather than stopping the blink as is seen in most people after a short period of habituation to the stimulus.⁵

The patient should be asked to do specific tasks for motor impersistence. Asking the patient to keep the tongue out, maintain a fixed lateral gaze, or say "ah" or "ee" for 15 seconds may reveal this defect. Also, the physician can ask the patient

TABLE 2
Relative Anticholinergic (Atropine Like) Potency of
Tricyclic Antidepressants¹⁹

Amitriptyline (Elavil)	++++
Doxepin (Sinequan)	+++
Nortriptyline (Pamelor)	+++
Imipramine (Tofranil)	++
Desipramine (Norpramin)	+
Protriptyline (Vivactyl)	+

to maintain a fixed grip. Patients who are unable to persist at these tasks often have underlying organic deficits, particularly of the frontal lobes. A syndrome of post hyperventilation apnea is seen in some elderly individuals with brain disease. If the person is asked to hyperventilate five times, often a normal breathing rhythm will not be seen for 12 to 30 seconds. Signs of pseudobulbar palsy should be sought. This indicates difficulty in the cerebrum and would appear with exaggeration of the gag reflex, emotional lability and dysarthria. Multi-infarct dementia following hypertensive disease or diffuse cortical damage is often present in these instances.⁶

In performing the peripheral neurologic examination it must be remembered that some changes are a normal consequence of aging. Pupillary diameter diminishes and smell becomes less distinct. Hearing at higher frequencies is generally impaired. The gag reflex reduces as one gets older but is spastic if pseudobulbar signs are present. With normal cortical loss during aging, muscular atrophy occurs. This is more commonly noted in the interossei of the hands and the gastrocnemius. Fine fasciculations in the calves may be a normal finding. The tone of muscles often increases with rapid passive manipulation (paratonic rigidity). Vibratory sense in the ankles and feet is often diminished. The deep tendon reflexes may normally show brisk responses in the arms with bilateral loss of ankle jerks. The Babinski is always abnormal if present, but may be difficult to elicit due to decreased plantar sensation or foot stiffness.

Differential Diagnosis

Changes of behavior in the elderly have a differential diagnosis and the physician must rule

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TABLE 3

Relative Anticholinergic Potency of Antipsychotic Agents and Likelihood of Extrapyramidal Symptoms³²

	Anti-Ach	EPS
Thioridazine (Mellaril)	+++++	+
Chlorpromazine (Thorazine)	+++	+++
Perphenazine (Trilafon)	++	++++
Fluphenazine (Prolixin)	++	++++
Trifluoperazine (Stelazine)	++	++++
Haloperidol (Haldol)	+	+++++

TABLE 4

Relative Sedative/Hypotensive Activity of Antipsychotic Agents³³

Promazine (Sparine)	+++++
Thioridazine (Mellaril)	++++
Chlorpromazine (Thorazine)	++++
Droperidol (Inapsine)	+++
Thiothixene (Navane)	+
Haloperidol (Haldol)	+
Fluphenazine (Prolixin)	+
Trifluoperazine (Stelazine)	+

out endocrine disorders or chronic cardiovascular, lung, liver or kidney disease. Normal pressure hydrocephalus with its characteristic triad of urinary incontinence, dementia, and a wide base gait should be considered. Vitamin B-12 and folate deficiency is not uncommon in the elderly. Drug intoxications and alcoholism should always be suspected. CNS infections such as with cryptococcus or syphilis can cause bizarre presentations of symptomatology. Other considerations would be intracranial masses, Parkinson's disease, Wilson's disease, Huntington's disease, Alzheimer's disease and Jakob-Creutzfeldt disease. Lastly, one of the more difficult tasks is ruling out whether the person has a dementia syndrome associated with depression (Table 1) rather than true underlying organic pathology.⁷

If no clues are obtained from the history, physical examination, mental status or neurological examination, ancillary procedures should be done to rule out basic underlying physical disorders. Tests to consider in an elderly person would include a complete blood count, syphilis serology, automated chemistry screen, thyroid function, chest x-ray, and routine urinalysis. Elective procedures which should be included by a physician before use of psychotropic drugs might include skull x-rays, brain scanning, EEG, cerebral angiography, cisternography or computerized tomographic brain scanning. Obviously more focal findings would suggest these further tests.⁷

Restoring Lost Functions

Before the use of psychotropic agents, other alternative treatments, primarily of a supportive or psychological type, should be tried in elderly patients. One fact often forgotten is the need to

try to restore lost functions. An effort should be made to correct an elderly patient's physical limitations. Intensive medical treatment, attention to nutrition and other details must be carefully evaluated. The patient should be screened to be sure that hearing aids or eye glasses are not needed. When these items have been completed, one then tries to reduce dependence on lost function. This is done primarily thru environmental manipulation. The less the patient is stressed the better the patient will function. Adjustment to change is often affected in elderly individuals. One should inform family members to keep as much constancy in the patient's environment as possible. Easily visible personal items such as clocks, calendars, and pictures of family members should be kept close at hand. If for some reason the patient requires movement, particularly from a nursing home to a hospital, or from the family's home to the hospital, personal items should be taken along to be used as orienting signals. If these efforts fail, then one should utilize remaining residual functions with pharmacologic treatment.⁸

Pharmacokinetics of Psychotropics in the Elderly

The use of psychotropic agents in elderly individuals requires a significant understanding of pathophysiologic changes which might modify responses to psychotropic agents. The broad category of pharmacokinetics must be considered. This area of pharmacology includes absorption, distribution, metabolism, and excretion of drugs in the body. In the elderly patient, gastrointestinal absorption of medications is often impaired. The

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aged have decreased total gastric acidity which influences the absorption of certain medications. Atony from atrophy or deterioration of smooth muscle in the gastrointestinal system lengthens the transit time of medications and thereby increases their likelihood of being metabolized in the interfacing gut wall. Likewise, decreases in the gastrointestinal arterial supply from atherosclerosis or decreased cardiac output may further diminish absorption and uptake of drug.⁸

Distribution of drugs is often impaired in the elderly. It must be remembered that lean body mass diminishes in the aging patient and is replaced by fat. These fat deposits trap many psychotropic agents because of their lipophilic nature. Distribution can be slowed by decreased cardiac output, increased circulation time and possible underlying myocardial pathology. Due to decreased serum proteins, a general finding in the elderly, transport of medication in the plasma may be impaired.⁸ Likewise, the active free drug fraction will be increased with a corresponding increase in side effects.

Metabolism of psychotropic agents is invariably changed as a person ages. Even with normal liver function studies, hepatic metabolizing systems are less efficient with advanced age. Renal cellular impairment often appears very slowly and can alter chemical conjugation of medications.⁸ Serum creatinine clearance is a more accurate assessment of renal function compared with serum creatinine.

Drugs are excreted much more slowly in the aged primarily because of renal blood flow diminishment. Renal clearance in the elderly diminishes at about 6% per decade past age 30. The glomerular filtration rate may diminish 30% as a person ages from 45 to age 90.⁸

Lastly, the pharmacodynamics of drugs are altered in aged individuals. This principle describes drug-receptor interactions. Due to normal neuronal loss and cytoarchitectural changes that occur in an aging brain, both the sensitivity and reactivity to psychotropic agents may be paradoxically modified.⁹

Antianxiety Agents

When evaluating complaints of the elderly it must be remembered that anxiety neurosis **does not** begin in senescence. This is an illness which begins in adolescence or young adulthood and may or may not persist throughout life. The onset of anxiety in the elderly person with no previous history of anxiety should always suggest further evaluation for an organic cause.

Barbiturates were classically used to treat anxiety states prior to the introduction of the benzodiazepines. In the elderly, these should be avoided. They may cause paradoxical excitement because of cortical disinhibition. Likewise, barbiturates will induce hepatic drug metabolizing enzymes which can modify the response of other concomitant medications. This could be particularly troublesome in the elderly who are often on numerous medications. The use of barbiturates also makes dystaxia more likely in aged individuals and increases the likelihood of falling with a resulting fracture. Meprobamate has effects similar to barbiturates and should be avoided for the same reasons. Antihistaminic agents such as diphenhydramine or hydroxyzine have sedation as a side effect. This has given them the undeserved reputation of being useful in anxiety.¹⁰ These are very highly anticholinergic agents and may be additive with other anticholinergic drugs such as belladonna alkaloids, useful in gastrointestinal medicine. Because of atropine-like effects these agents can increase constipation, cause urinary retention or exacerbate the effects of glaucoma. Beta-blockers are showing some increased use in anxiety states where overactive sympathetic nervous system function is a feature. These can compromise cardiac reserve in the elderly by blocking needed adrenergic stimuli and can mask sympathetic signs of hypoglycemia in diabetics.¹¹

The benzodiazepines have essentially replaced sedative agents in the modern pharmacologic treatment of anxiety. Those used in anxiety states can essentially be grouped into three classifications. Chlordiazepoxide, diazepam, prazepam, and the chlorazepates all produce pharmacologically active metabolites.¹² In the elderly the half-lives of secondary metabolic products are

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increased and this increased half-life can approach two to three days in some individuals thus enhancing the likelihood of accumulation. This is generally observed after 10 days to two weeks of therapy. The second group of drugs is the chlorazepates. These are prodrugs and require acid hydrolysis in the stomach to be pharmacologically active. Any cause of increased gastric pH or diminishment of free gastric acid will cause less drug to be available.¹³ This is often a normal consequence of aging and is also seen in postgastrectomy patients or those who consume excessive amounts of antacids. The third group of benzodiazepines consists of oxazepam and lorazepam. These drugs are metabolized by simple glucuronide conjugation, have no active metabolites and therefore do not accumulate. These are probably drugs of choice in the elderly where a benzodiazepine is wanted.¹⁴

Hypnotics

The benzodiazepine flurazepam is primarily used as an hypnotic. It has recently been noted that the elderly receive more prescriptions for hypnotics than any other segment of our population and in fact probably receive 40% of all sedative prescriptions written.¹⁵ Flurazepam has a long half life of 51 to 100 hours even in middle aged individuals.¹⁶ In the elderly person, the half life could be as long as one week. Recent studies have noted that even in young people daytime mental activity is often reduced after a single dose of flurazepam¹⁷ and delirium is noted in some elderly patients at usual hypnotic doses. Further often unrecognized problems with the use of benzodiazepines are seen with the intramuscular use of chlordiazepoxide and diazepam. The intramuscular absorption of these agents is inferior to the oral absorption and erratic and unpredictable results may occur.¹⁴ Chloral hydrate is a safe hypnotic for short term hospital use. However, due to high protein binding, it may displace other medications from serum binding sites and increase side effects.

Tricyclic Antidepressants

Proper usage of tricyclic antidepressants generally requires lower dosage adjustments for the

elderly patient. The predictors of positive response to these agents are the same as for a younger person. These include insidious onset of affective changes, psychomotor disturbance, anorexia, weight loss, middle and terminal insomnia, decline in sexual drive and energy, and loss of mental concentrating ability. Predictors of poor response are past history of neurotic or hysterical traits, delusions, and previous lack of response to a tricyclic antidepressant. One of the more confusing aspects in treating the elderly with these agents is determining whether the individual has a dementia syndrome of depression or is showing a prodrome of an early dementia. Table 1 lists some of the features which may assist the physician to discriminate between these two disorders.¹⁸

A rule of thumb in the use of these agents in the aged is to start low and go slowly with adjustment of dosages.⁸ It is also wise to not initially give all of the dose at bedtime as has become the practice for treating younger patients. The starting dose for an elderly person should be roughly 50% of the starting dose for a middle-aged person. All tricyclic antidepressants are very high in anticholinergic activity and careful consideration is required when using these agents in patients who may have benign prostatic hypertrophy or other disorders sensitive to atropine-like effects. Table 2 shows the rank ordering of anticholinergic activity so that the physician can select an agent not likely to cause harm in patients with physical disorders sensitive to anticholinergic effects.¹⁹

Toxic difficulty with tricyclic antidepressant agents in the elderly primarily affects two organ systems, the heart and the brain. These drugs can induce cardiac dysrhythmias or block. As a simple guideline, the width of the QRS is a useful indicator of excessive toxicity and a duration of 0.10 seconds or more should alert the physician to a dosage reduction or cardiovascular evaluation.²⁰ The toxic mental effects of these agents primarily manifest as a central anticholinergic syndrome with confusion, loss of recent and new learning memory and agitation. Usually, but not always, the elderly patient also has peripheral atropinic effects. These include dry mucous membranes,

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decreased sweating, mydriasis, blurred vision, tachycardia, elevated temperature, decreased bowel sounds, and urinary out-flow difficulty.²¹ If the elderly patient is particularly sensitive to the side effects of tricyclic antidepressants or shows an inadequate or poor response to these agents, ECT should be considered within the treatment plan.

Lithium Salts

Lithium carbonate has received increasing use for the prophylaxis of manic depressive illness. It is also receiving excessive use by some physicians as a panacea for other psychiatric disorders which are inadequately studied. Lithium is marketed in 300 mg. tablets, capsules, liquid and a sustained release preparation. It has been noted that therapeutic levels in young adults generally run 0.6 to 1.2 mEq/L and some studies suggest that the effective prophylactic level in these individuals is 0.8 mEq/L or above.²² However, in the elderly patient 0.4 to 0.7 mEq may be sufficient and the aged individual may show signs of toxicity at blood levels that would not cause similar effects in middle aged or younger patients.²³

The target organs for evaluation prior to lithium usage in the elderly include the thyroid gland, kidneys and heart. It is well known that goiter and hypothyroidism can result with the use of lithium carbonate²⁴ and elderly individuals who are hypothyroid are at risk for other increasing medical complications such as elevated cholesterol, increased rates of atherosclerosis, and decreased cardiac function. A nephrogenic diabetes insipidus syndrome has been noted with the use of lithium. The signs are excessive thirst with increased consumption of fluids and increased production of low specific gravity urine. This is generally easily treated with the addition of a small amount of thiazide diuretic.²³ However, lithium dosage will require a downward adjustment. Rarely, a sinus bradycardia has been noted with the use of lithium carbonate. This seems to be an idiosyncratic response of the sinus node. Unfortunately, there is no present treatment other than removal of lithium and use of other treat-

ment methods.²⁵ Recent European studies have shown that nephrosclerotic changes with loss of concentrating ability have been noted in chronic lithium users.²⁶ Elderly patients on lithium should have a creatinine clearance obtained every six months to a year. It must be remembered that the elderly patient loses lean body mass and thus serum creatinine may remain stable throughout life while creatinine clearance is in fact diminishing. Elderly patients require more careful evaluation of creatinine clearance than their younger counterparts.

The half life of lithium in the elderly can run 36 to 48 hours vs. roughly 24 hours in younger adults.²³ Lithium toxicity has features similar to bromism but with excessive thirst and polyuria. Extreme muscular weakness may be a significant finding as lithium has been noted to have effects on muscles and even has been noted to induce a latent myasthenia gravis syndrome.²⁷ Likewise, if the elderly patient on lithium is to have surgery or ECT, lithium can prolong depolarizing and nondepolarizing neuromuscular blockers and lithium dosages should be reduced or stopped prior to surgery.²⁸ Leukocytosis is often a normal finding during treatment with lithium and may be quite high in the toxic patient. A white count of 13 to 15 thousand is not unusual in patients maintained on lithium, but a left shift in the differential count is not seen.²⁹ One of the most crucial things to remember in lithium treatment of the elderly patient is to maintain normal sodium balance. Since lithium levels vary inversely with the sodium load, anything that affects sodium levels can cause dramatic rises in serum lithium.²³ For instance, sodium depleting diuretics, a low salt diet or salt losing nephropathy will elevate serum lithium even if the lithium dose remains constant. As many elderly patients are on either diuretics or low salt diet, very careful observation is necessary. In the case of poisoning, a sodium load enhances lithium excretion. For an elderly patient toxic on lithium, intravenous normal saline should be started immediately. The patient, unknown to the physician, may be in negative sodium balance prior to confirming results from laboratory testing.²³

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Neuroleptics Used with Lithium

Neuroleptics and lithium are often used together in the management of manic patients. Recent studies suggest that phenothiazines can increase the passive diffusion of lithium ion across cell membranes and theoretically the intracellular lithium could be much higher than the plasma lithium. Therefore, plasma levels might not necessarily reflect lithium levels within cells. This has not been observed with haloperidol, imipramine, amitriptyline or phenelzine but studies to date have been *in vitro* only and further studies in humans are required.³⁰

Neuroleptics

The primary uses of antipsychotic agents in the elderly are for managing arousal signs of organic brain syndrome and in elderly patients who are schizophrenic or suffering from psychotic depression. As with other medications, the dosage of antipsychotic drugs must be drastically reduced. Likewise, elderly patients seem more sensitive to the neurologic side effects of these agents. As many as 60 to 80% may get parkinsonian signs when treated with these compounds.³¹ It has been noted that the occurrence of extrapyramidal effects from neuroleptics is inversely related to their anticholinergic activity.³² Thus, medications that are highly anticholinergic, such as mesoridazine or thioridazine, are much less likely to cause neurologic difficulty in the aged. On the other hand, excessive dosages of these antipsychotic agents would be more likely to produce anticholinergic confusion (Table 2). Haloperidol, fluphenazine, thiothixene and trifluoperazine are almost devoid of anticholinergic effects and these would be most useful in patients where this is a consideration. Some studies have suggested that low dose-high potency antipsychotic agents are preferable in treating elderly patients. However, there is no conclusive data at present to show that any one antipsychotic agent such as haloperidol or thiothixene is superior for use in the elderly and elderly patients must be managed on an individual basis with these agents as is true with any other medication.

The side effects most troublesome in the elderly patient treated with antipsychotic agents will be

orthostatic hypotension and parkinsonism. Orthostatic hypotension seems related to the ratio of alpha adrenergic blockage to dopamine receptor blockade.³³ Table 4 shows a rank ordering of agents that have been studied in this particular model. Elderly patients who have syncopal episodes on standing should be managed with agents least likely to cause orthostatic hypotension. Other significant side effects in the elderly are atropinic effects in the gastrointestinal or urologic system. These can result in severe constipation and frank paralytic ileus or megacolon. As fecal impaction is a frequent cause of confusion in the elderly, this should be considered in aged patients receiving antipsychotic agents. The elderly male with benign prostatic hypertrophy will likely be more sensitive to urinary tract obstruction from agents with higher anticholinergic activity.

Agitation in Hospitalized Aged Patients

A frequent problem in managing elderly patients occurs within nursing homes and general hospital medical or surgical services. The older person with an occult organic brain syndrome is often admitted and then loses environmental orienting signals. The effects of surgical procedures or medical illness may then cause acute delirium. These patients can be serious management problems and the unwary physician who treats aged persons with antipsychotic agents may accidentally overdose the patient with resulting obtundation and its consequences. The agitated elderly patient in a general hospital can often be treated by rapid intramuscular titration which makes these drugs readily bioavailable, thus the gastrointestinal pharmacokinetic problems that were discussed previously are avoided. One method that has been found successful involves either using mesoridazine or haloperidol.³⁴ These drugs are administered by a readily available U-100 insulin or tuberculin syringe which is recognized by nurses in any medical or surgical discipline. As an example, mesoridazine 5 mg. is 1/5 ml which is equal to 20 units in the U-100 syringe. This may be administered every one to two hours until quiet. If the physician chooses haloperidol, an appropriate starting dose might be 1/2 mg. every one to two hours by intramuscular injection. This

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is 1/10 ml. and would require 10 units in an U-100 syringe. With the use of haloperidol and mesoridazine, a switch to concentrate and oral medications can be done when agitation diminishes. Most elderly patients should become manageable in four to six hours by this method. Moreover, the physician may titrate the dose upward to effect without giving excessive amounts of medication that will be stored in fat deposits and require long excretion times in order to remove unwanted side effects. The injection site should be in the deltoid area as blood flow here is three to four times the rate in gluteal muscle and the risk of gluteal decubitus ulcers is decreased.

Ergot Alkaloids and Vasodilators

Many physicians continue to treat early dementia with ergot alkaloids or vasodilators. Most studies suggest that vasodilators are of no benefit in the elderly.³⁵ As has been pointed out in the dementia literature, cerebral atherosclerosis is an uncommon cause of dementia in the aged. There is some recent evidence that suggests that ergot alkaloids given in dosages of 6 mg. per day may have potential benefit in early cases of organic brain dysfunction. However, these medications must be given for at least six months to determine a positive effect.³⁶

Conclusion

The elderly patient presents a challenging, demanding but very exciting task for the physician who is attempting to treat abnormal behaviors with psychotropic medication. If the patient is carefully evaluated and appropriate dosages and types of psychotropic agents are chosen, the quality of life of many aged individuals can be improved. Often they can remain either productive in society or behaviorally manageable without being chemically constrained in a vegetative state. Increased awareness for the behavioral needs of the elderly in our midst should lead to further research efforts to find medications for specific

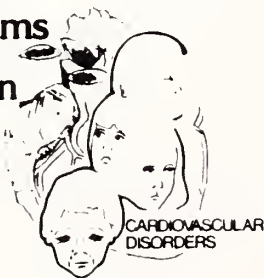
behavioral disorders in this population. This is a vital need in geriatric medicine, rather than just adopting drugs used in the middle-aged population for use in the elderly. Lastly, and most importantly, the use of multiple psychotropic medications or polypharmacy in the elderly, should be avoided with the highest therapeutic priority.

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Problems
in the
Human
Life
Cycle



“Birth, Infancy and Childhood” is Tuesday’s Theme at the KMA Annual Meeting

Constantine Mavroudis, M.D., will speak Tuesday morning, Sept. 22, on “The Changing Role of Palliative and Corrective Surgery in the Treatment of Congenital Heart Disease in the Infant.”

During his presentation, Doctor Mavroudis will discuss specific lesions such as: Tetralogy of Fallot, Transposition, Truncus Arteriosus and Ventricular Septal Defects.

Doctor Mayroudis is a surgeon from the University of California in San Francisco.

Giant Bullous Emphysema: A Surgical Disease

WM. T. MATTINGLY, JR., M.D., M.L. DILLON, M.D., N.K. BURKI, M.D. AND E.P. TODD, M.D., PH.D.

Giant bullous emphysema is a cause of pulmonary insufficiency which can be ameliorated by surgical intervention. Most forms of emphysema prevalent in our population lend themselves to surgery only for complications. Giant bullous emphysema provides the unique opportunity to improve the life style of affected patients.

Case Report

A 29-YEAR-OLD white male presented with a one and one-half year history of progressive dyspnea, which had progressed to total disability. He maintained a normal respiratory rate at rest, but would develop symptoms of "breathlessness" with minimal exertion. History for environmental exposure was negative, as was the family history. Physical examination was remarkable for absence of breath sounds in both upper lung fields. There were no significant wheezes. The A-P diameter was increased, with normal musculature. Chest X-ray (Fig. 1) showed bilateral giant bullous emphysema. Arterial blood gases were surprisingly good, with a PO_2 of 81 mm Hg and PCO_2 of 37 mm Hg. Pulmonary function tests were performed on several occasions, and are summarized in Fig. 2. A ventilation-perfusion scan showed matched ventilation-perfusion defects in both upper lobes.

A right thoracotomy was performed initially. A giant bulla was found involving the right upper lobe, with small bullae at the periphery of the lower and middle lobes. Resection was carried out using stapling devices. (Fig. 3,4). Postoperatively the patient did extremely well. Because of improved symptomatology after the first proce-

dures, the ventilation-perfusion scan was again obtained, which then showed only left-sided abnormalities. In addition, pulmonary function testing, as demonstrated in Fig. 2 showed marked improvement.

Left thoracotomy with resection of bullae, was then performed three months later. Identical technique was used, and again the postoperative course was benign. The table in Fig. 2 also summarizes the pulmonary function testing found after recovery from the second procedure. This patient was able to return to full employment.

Comments

The exact etiology of bullous emphysema is unclear, although both genetic and inflammatory etiologies have been implicated. Smoking and industrial exposure may also be important. Most surgical interventions for emphysema are in treatment of complications, of which the most common is spontaneous pneumothorax. Tension pneumothorax may be the presenting condition, but in general these patients are able to seek medical assistance, and can be treated with tube thoracostomy. Other complications include: hemoptysis secondary to erosion in a bulla or infection. Infection may present as infected bullae, empyema, or recurrent pneumonia from spillage. Surgical intervention in these cases, although often posing problems in terms of choice and timing, is generally straightforward.

Indication for surgical intervention for dyspnea are often less well defined. Early attempts at

From the University of Kentucky Medical Center Hospital, Lexington, KY. Presented at the Kentucky Thoracic Society Scientific Conference, October 26, 1979.

BULLOUS EMPHYSEMA—Mattingly et al



Fig. 1: Admission chest x-ray

surgical resection of giant bullae were accompanied by poor results. Fitzgerald² in a report on surgical treatment of pulmonary emphysema in 47 patients reported a postoperative mortality of 21%. However, he did note that 45% of his patients had long-term improvement from the previously disabling dyspnea. Many of these patients were treated in the pre-respirator era between 1950 and 1964. DelaRue,¹ in a long-term follow-up of 84 patients followed after 95 surgical procedures for bullous emphysema reported much better results. There was a 2% operative mortality, and a serious complication rate of only 7%. Their results reflected improved postoperative care instituted in later years. They concluded that surgery would be beneficial if the bulla occupied greater than one-third of a hemithorax, as 50% to 100% improvement was obtained consistently in the FEV-1 in their reported cases.

The etiology of dyspnea in patients with giant bullae is multi-factorial. Both dead space and shunting abnormalities may occur with one defect

predominating. Compression of normal parenchyma by bullae may be the primary reversible component. It is impressive that the clinical improvements in this case report exceeded even the predictability of the pulmonary function test. Both chest radiographs and ventilation-perfusion scans showed dramatic improvement with operation. Large bullae may also increase pulmonary vascular resistance and effective transthoracic pressure, and cor pulmonale may result from the increased right sided myocardial demand. However, the cause of dyspnea may be even more complicated. Burki³ and Campbell⁴ have noted that breathlessness is often noted in such patients out of proportion to the degree of airway obstruction. They suggested it may be due to the attainment, with respiration, of an "inappropriate respiratory muscle-length for the tension produced relative to the patient's experience." In addition, there may be a "tension" phenomena contributing to the sensation of breathlessness as seen with patients with lobar cysts and pneumothorax presumably mediated through mediastinal pressure receptors. This mechanism has been poorly defined.

From review of Fig. 2 it can be seen that the major deficit in this patient's pulmonary function tests occurred in the forced expired volume 1-second (FEV-1), maximum mid expiratory flow (MMEF), and residual volume (RV). These all improved dramatically with the first procedure and again with the second. FEV-1 showed most dramatic improvement with the first operation. The FEV-1 after the second procedure of 93% of predicted is essentially normal for age.

More aggressive surgical management would be beneficial to many other selected patients with bullous emphysema. Clearly, those patients with dyspnea who have bullae occupying more than 30% of the hemithorax may be benefited with an acceptable morbidity and mortality. Surgical technique must be tailored to preserve as much functional parenchyma as possible. Traditional methods of evaluation such as pulmonary function testing must be supplemented by ventilation-perfusion scans and occasional right heart catheterization. It is likely that even cor pulmonale is

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Figure 2
SUMMARY OF SERIAL PULMONARY FUNCTION TESTS

	PRE-OPERATIVE	RIGHT THORACOTOMY	BILATERAL THORACOTOMIES
FRC	3.65 (141%)	3.53 (136%)	3.43 (132%)
RV	2.52 (236%)	1.35 (126%)	1.26 (115%)
FEV ₁	2.85 (69%)	3.53 (87%)	3.76 (93%)
MMEF	1.25 (34%)	2.53 (57%)	3.80 (87%)
FEV ₁ /FVC	(64%)	(70%)	(80%)
() percentage figures reflect relation to predicted values.			
FRC	- Functional residual capacity - Liters		
RV	- Residual volume - Liters		
FEV ₁	- Forced expired volume in 1-second		
MMEF	- Maximum mid-expiratory flow liters/sec		
FEV ₁ /FVC	- Ratio		

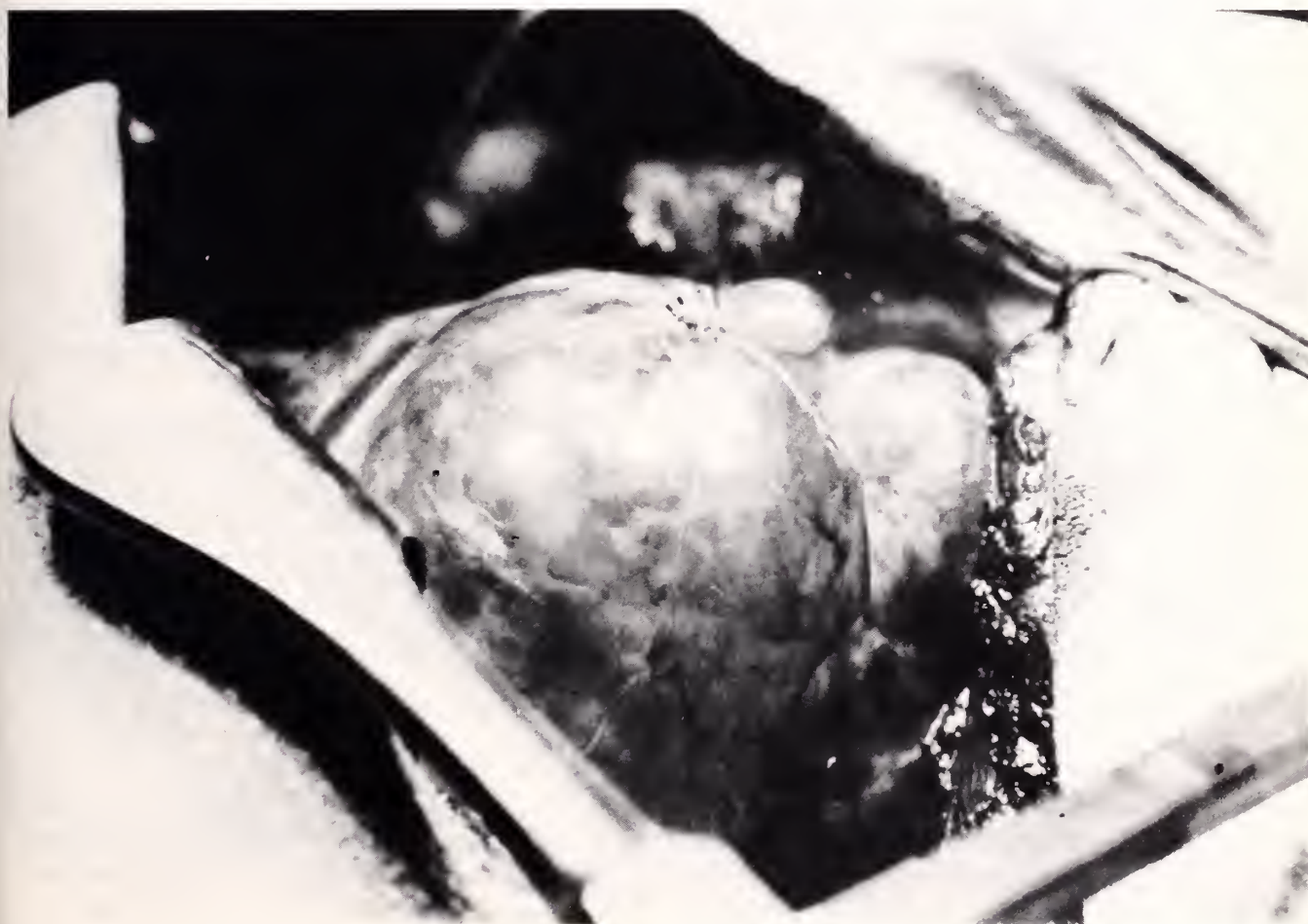


Fig. 3: Operative photograph

BULLOUS EMPHYSEMA—Mattingly et al



Fig. 4: Operative photograph

not an absolute contraindication to intervention⁵. With advanced cardiovascular management cor pulmonale may be a relative indication for intervention in order to prevent further myocardial injury. Mortality and morbidity should be quite acceptable due to advances which have taken place in respirator management, operative techniques utilizing staplers, and general improvement of ICU care. The diagnostic modalities and the surgical approach utilized in this case are

applicable to more patients whose life styles are restricted by bullous emphysema.

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SUMMARY

A 29-year-old white male presented with severe bullous emphysema and disabling dyspnea. This was successfully treated with bilateral thoracotomies and wedge resection with plication. Selected patients may benefit from surgical intervention in this extreme form of emphysema.

Chronic Eosinophilic Pneumonia: A Case Without Tissue Confirmation

Abdul Kader Dahhan, M.D. and Kathy Guyn, R.N.

A case of chronic eosinophilic pneumonia is presented. Tissue material was not obtained but the patient was treated successfully with steroids. The case will be described and pertinent literature reviewed.

CHRONIC eosinophilic pneumonia is a rare disease that was first described as such by Carrington and Addington in 1969.¹ The illness has a characteristic clinical, radiological and physiological presentation that seems to be diagnostic by itself. It was suggested by Morrissey, Gaensler and Carrington² in 1975 that lung biopsy is not necessary in typical cases and a therapeutic trial of steroids might serve the purpose of establishing the diagnosis. The purpose of this communication is to describe a case that fits the above criteria and did not require tissue material to establish the diagnosis. The literature will be reviewed briefly.

Case Description: A 59-year-old female was hospitalized in December, 1979, with fever, chills, drenching night sweats, cough, dyspnea and weight loss. Her illness began 18 months prior to this hospitalization with progressive dyspnea on exertion. Eight months prior to admission she began having fever, drenching night sweats, chills, anorexia and weight loss. She was treated on multiple occasions for "pneumonia" because of abnormal chest x-ray with no improvement. The patient is not a smoker, has no history of chronic pulmonary illness, but does have a history of hayfever in the spring and the fall. There

are no known allergies. The patient has not been on any medications, including Furadantin, Sulfa or antihypertensive agents. She denies cough, sputum production, hemoptysis, or wheezing, and lost 15 pounds over the six months prior to her visit.

Past History: Unremarkable.

Family History: Unremarkable. No known allergies in the family.

Examination: Patient was an acutely ill individual with dyspnea, tachypnea and shaking chills. Blood pressure was 140/70, respirations 40, pulse 120 and regular, and temperature 39 Centigrade. ENT were normal. No adenopathy was present. Normal air entry to both lungs was present. There was no crepitation, rhonchi or wheezing. The rest of the physical examination was unremarkable.

Chest x-ray (Figure 1) shows bilateral peripheral infiltrates, more so in the upper zones. Comparing the x-rays with the previous films obtained in the prior 16 months showed that the same picture has been present everytime the patient was treated for "pneumonia." CBC showed hemoglobin 10.7 gms., hematocrit 34, white cell count 6,600 with no eosinophils present. Total eosinophil count was 10 cells per millimeter; urinalysis normal; LE prep negative. Serum protein electrophoresis showed mild increase in the gamma globulin of 1.8 gms. Immunoelectrophoresis

EOSINOPHILIC PNEUMONIA—Dahhan and Guyn



Fig. 1

showed increase IgG, IgA, and no IgE was detected. SMA 18 showed normal chemistry. Electrocardiogram showed a pattern of incomplete right bundle branch block with sinus tachycardia. Arterial blood gases showed A-a gradient of 25 with normal PCO₂ and acid base balance (see table 1). Pulmonary function studies showed no evidence of airway obstruction (Table 1). 5TUTB skin test was negative after 48 hours.

Since the picture was strongly suggestive of chronic eosinophilic pneumonia, the patient was placed on 80 mgs. of Prednisone daily with excellent results. Within 24 hours the patient was completely asymptomatic with disappearance of her fever, tachypnea, chills, night sweats and dyspnea. Chest x-ray showed almost complete clearance of the pulmonary infiltrate. Prednisone dosage was tapered gradually; flareups occurred on two occasions when the dosage was dropped to 20

mgs. per day, requiring an increase to 40 mgs. per day. The flareups were manifested with recurrence of the initial clinical and radiological presentation.

After eight months of treatment she is being maintained on 10 mgs. of Prednisone daily, continues to be asymptomatic, and chest x-ray is normal (figure 2). Follow-up pulmonary function studies showed return to normal values. Blood gases were the same (Table 1).

Discussion: The initial classification of pulmonary eosinophilia in 1952 by Crofton, et al,³ included a category of prolonged pulmonary eosinophilia, which was characterized by peripheral eosinophilia, abnormal x-rays persisting for one month and severe clinical manifestation with the absence of asthma. It is clear that some of those patients

EOSINOPHILIC PNEUMONIA—Dahhan and Guyn



Fig. 2

were suffering from chronic eosinophilic pneumonia. This was first separated by Carrington and Addington in 1969,¹ when they described nine females with fever, night sweats, weight loss, cough, dyspnea, and abnormal chest x-ray. Tuberculosis was suspected until the patients did poorly on chemotherapy. Lung biopsy revealed the presence of eosinophilic infiltrate in the interstitial and alveolar spaces. All patients had excellent response to steroid therapy with the typical recurrence of the x-ray abnormalities in the same areas when flare-up of the illness takes place.

Morsey, Gaensler and Carrington,² in 1975, reported a case of chronic eosinophilic pneumonia and concluded that lung biopsy should be required only in atypical cases since the characteristic clinical and radiological findings warrant a trial of steroid therapy without tissue material. The

absence of eosinophilia in our case is unusual but not rare. It was noted by Gaensler and Carrington⁵ in 1977, that peripheral blood eosinophilia may not occur in as many as one-third of the cases, anemia is not uncommon, mild leukocytosis might be present, sedimentation rate is usually high, and the x-ray abnormality was described as the photonegative picture of pulmonary edema, which is in agreement with all the case reports in the literature.

In 1977, review of the English literature showed a total of 27 cases, including four by the authors Angelillo and Karmer.⁴ The etiology of the disease is unknown. Pathologically, lung tissue will show gross consolidation due to interstitial and small air space leukocytic infiltrate, the majority of the cells are mature eosinophils with a small number of histiocytes and lymphocytes

EOSINOPHILIC PNEUMONIA—Dahhan and Guyn

Table I. Serial spirometric, lung volumes and blood gases measurements.

PULMONARY FUNCTION AND BLOOD GASES

DATE	TLC	FRC	RV	FVC	$\frac{FEV_1}{FVC}$	MVV	A-a Gradient for oxygen
PREDICTED	4520 cc.	2670 cc.	1650 cc.	2548 cc.	74%	50 L/min.	15 mm. Hg.
1/80	3030 cc.	2080 cc.	1330 cc.	1700 cc.	82%	48 L/min.	25 mm. Hg.
9/80	3000 cc.	1850 cc.	900 cc.	2100 cc.	81%	78 L/min.	24 mm. Hg.

present in the interstitium. A persistent finding is multinucleated giant cells within the air spaces, some of which contain eosinophilic granules and minute Charcot-Leyden crystals. There may be some degree of angitis affecting a few small vessels, predominantly the venules.⁶ Collagen deposition is infrequently found, explaining the excellent prognosis and rapid clearance of the radiological infiltrates.

A rare case was reported by Cogen and Maycock⁷ of a patient with chronic eosinophilic pneumonia complicating longstanding intrinsic and extrinsic bronchial asthma followed by the development of polyarteritis nodosa. No other report in the literature exists to confirm such progression. The prognosis generally is excellent

providing the disease is recognized and proper steroid therapy is instituted. Pearson and Rose-now⁸ in 1978 reported on a follow-up study of eight patients with chronic eosinophilic pneumonia: two were continuing to take steroids for five to eight years; five patients were able to discontinue steroids after an average of four years, one patient did not require any steroids at all.

If the diagnosis is not recognized, the disease can be aggressive. A case was reported recently by Libby and Murphy,⁹ of a patient who presented with acute respiratory failure, with a PO₂ of 28. After the diagnosis was established by lung biopsy and institution of steroid therapy, the patient had excellent recovery with no significant residual pulmonary impairment.

SUMMARY

Chronic eosinophilic pneumonia is a rare disease which can be treated and probably cured with no residual loss of lung function. The need for lung biopsy is not essential and typical cases can be treated with steroids. Tissue material will be obtained if the response is poor or the presentation is atypical.

EOSINOPHILIC PNEUMONIA—Dahhan and Guyn

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EDITOR'S NOTE

The patient may have had Eosinophilic Pneumonia, but intensive therapy with high doses of corticosteroid was used without (1) peripheral eosinophilic, (2) examination of sputum for pathogenic organisms and (3) tissue diagnosis.

TO THE NEW PHYSICIAN:

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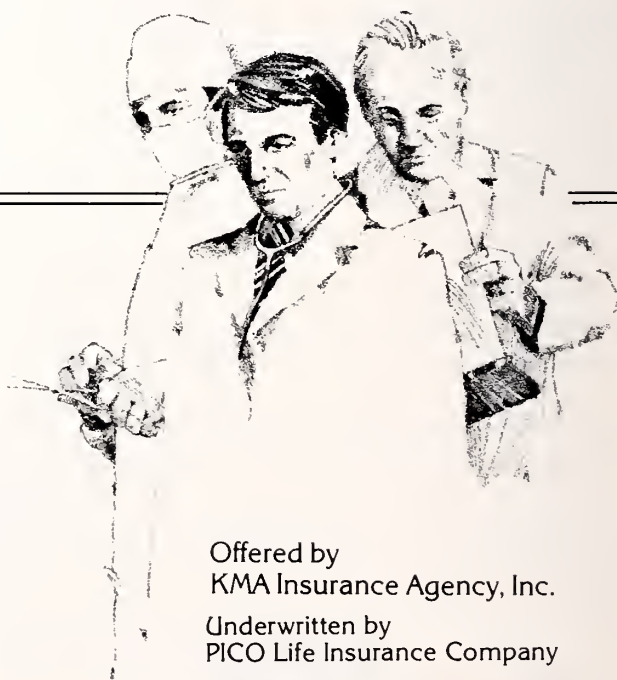
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Stewart's Law

"... but I don't eat too much!" Well, yes she does eat too much, but it is not likely to help if we tell her so. She'd been saying she really wanted to weigh 120 and was exasperated with her 154. Still, she was convinced that there was some obscure organic metabolic defect that was responsible for her "tiny" caloric intake doing double duty, *ie*, plenty to burn and lots to store, as well. "Probably it's my thyroid!"

In this century Americans have both pitied and ridiculed obesity. Neither attitude was kind, but still neither was so cruel as our current tendency to see obesity as normal. Middle-aged males have come to regard a paunch as a right. Adolescent females need no longer strive for normal nutrition and a lissome profile to be accepted as majorettes. All that is required is a huge pair of pantyhose and a feckless band director, susceptible to the demands of assertive mothers. Probably it's a Civil Rights matter, somehow. Is there an Adipose Caucus?

This practitioner, after 35 years, does not know an answer to obesity. Probably there are several answers and, for some, no answer at all. Ever-so-many of these sufferers are unwilling to be hungry at all, ever, and turn to anorexics and odd diets, none very effective as is witnessed by their proliferation.

Instead, more in sadness than with satisfaction, the writer hereby refers to Stewart's Law which states: "People weigh what they *want* to weigh."^{*}

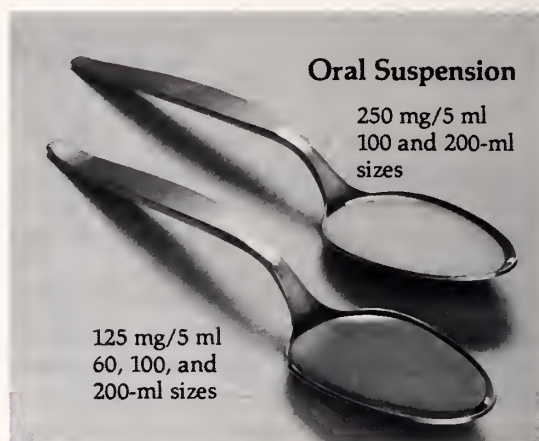
One observes overweight people who, for special reasons, (more often reasons of the heart than of the mind) simply decide to lose weight—and do so most impressively, without stimulants or diets. They suddenly *wanted* to weigh less and immediately set about doing so.

The writer uneasily views his tendency to seek out lost causes for promotion and recalls such things as the Merit System for Medicine and the Golden Rule for All of Us. He cannot manage it with any of the engaging naivete of a Don Quixote. Likely, he only champions the Lost Causes he *wants* to champion. Yet one can learn much of the human spirit in watching the intricate ways in which physicians and patients, in collusion, try to maintain bad habits and good health simultaneously. The physicians have little cause for a holier-than-thou attitude, since generally we aren't any holier. Then we complain only weakly about the expense of treating readily preventable conditions. So the health planners had best continue to plan for great leaps forward in costs and nascent healers must be helped to a genuine understanding of how difficult it is to deal with patient induced ailments, because despite protests and self-deceit and struggles and threats people really do what they *want* to do.

David Stewart, M.D.

^{*}There are many corollaries, *eg* "People do what they *want* to do" applying to such statements as, "I wish I had more time to read," or "I wish I could spend more time with the family."

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Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

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Drug interactions. *Aspirin*: used concomitantly may decrease *Motrin* blood levels.

Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea^{*}; epigastric pain^{*}; heartburn^{*}; diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness^{*}; headache, nervousness; **Dermatologic:** Rash^{*} (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

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Idiopathic Hemochromatosis

CARLO H. TAMBURRO, M.D. and VICTOR KOO, M.D.

Introduction

Hemochromatosis was first described about 100 years ago by Trousseau and later by Hanot and Chauffard.¹ It was given the name of "Bronzed Diabetes" by Pierre Marie² because French clinicians took the brown discoloration of the skin in diabetes to be significant features along with the cirrhosis of the liver, which was already recognized as a third cardinal symptom. The term "hemochromatosis" was first used by Recklinghausen,³ a German pathologist who believed the iron containing pigments produced by decomposition of the blood were responsible for the bronzed appearance of the skin and organs. Hence, the misnomer "hemochromatosis" which is inaccurate as we know today since the decomposition of iron in the organs has nothing to do with the decomposition of the blood.

Idiopathic hemochromatosis is a disorder of increased total body iron with concomitant tissue damage. Excess iron is found profusely in the parenchyma of various organs, especially the liver, pancreas and heart. This definition includes patients who have sustained organ damage secondary to iron excesses and fail to easily mobilize the iron stores after therapeutic phlebotomy, *ie*, alcoholic patients with cirrhosis and secondary iron overload.

In our present state of knowledge hemochromatosis is believed to be an iron-storage disease with a genetic etiology. However, the precise mode of inheritance and the role of environmental factors still remain somewhat controversial.

There appear to be two other identifiable groups with similar defects in iron storage: 1) those with what is called hemosiderosis. In this group there is an increase in the total body iron stores without evidence of tissue damage. Excess iron is largely confined to the reticuloendothelial system and is often associated with multiple transfusions. This has been called transfusion hemosiderosis. When the total number of transfusions begins to approximate 100 the iron accumulation often approaches tissue levels observed in hemochromatosis and tissue damage may be present. However, in the early transfusional hemosiderosis most of the iron is confined to the reticuloendothelial system and tissue damage is unusual.

The second form has been called precirrhotic familial hemochromatosis. This is a disorder of asymptomatic patients with excess iron stores without evidence of tissue damage. This condition differs from idiopathic hemochromatosis in that the affected individuals presumably will develop clinical hemochromatosis with organ damage if not appropriately treated. Although the progression of tissue damage has not yet been reported in patients with precirrhotic conditions, it is believed that prolonged tissue exposure to elevated iron levels will result in organ damage if left untreated. These individuals are most frequently identified in the relatives of patients with clinically overt hemochromatosis.

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Clinical Cases

Case 1: A 27-year-old chemical industry worker was referred to the University of Louisville Liver Clinic because of persistent biochemical abnormalities thought to be due to chronic viral hepatitis or chemical exposure. Patient was well until 18 months prior to admission when he noticed some increased fatigability, thought to be due to his working at two jobs. His wife, a nurse, had developed acute viral hepatitis from which she had recovered. Due to the persistent fatigability and excessive tiredness, and the history of his wife's hepatitis, liver biochemical tests were done and proved to be persistently abnormal. He denied any loss of appetite, anorexia, vomiting, chills or fever and performed his jobs well. He did note dark pigmentation of his skin and felt this was due to his extensive exposure to the sun. On physical examination he demonstrated hepatomegaly with his increased skin pigmentation. Electrocardiogram and chest X-ray were essentially normal. No familial history of liver disease or alcoholism. Alcohol intake was less than one drink per week. Liver biopsy demonstrated diffuse parenchymal cell iron (Figure 1).

Case 2: A 40-year-old military chaplain noted two years prior to admission, arthralgias of his knees and 13 months prior to admission, arthralgias of his wrists and sought medical attention. Biochemical studies revealed abnormal liver functions. A liver biopsy demonstrated increased hepatocytic pigmentation which was shown to be iron. Family history indicated diabetes mellitus on the maternal side, mother and grandmother. No siblings had evidence of hepatic disease or diabetes. On physical examination he was found to have hepatomegaly, midline diastasis hernia, but no other evidence of cirrhosis nor increased skin pigmentation. X-rays of his knees demonstrated some erosions of the joints including subchondrial bony sclerosis and periarticular demineralization. Chest X-ray and electrocardiogram were normal. Liver biopsy showed mixed nodular cirrhosis with increased stainable iron, especially at periphery of nodules (Figure 2).

Clinical Manifestations

The clinical features of idiopathic hemochromatosis vary from asymptomatic individuals discovered by routine screening to individuals with a classic triad and end stage hepatic failure. The classic triad includes diabetes mellitus, increased skin pigmentation and hepatomegaly with cirrhosis. Patients, however, may initially present as diabetics, cardiac arrhythmias, testicular atrophy with reduced libido, arthropathy, and on rare occasions with clinical evidence of hepatic decompensation including ascites, edema, jaundice, fatigue, neurological changes or psychological symptoms. A review of the manifestations of this disease by Wohler⁴ based on 1,500 cases from the world's literature, provides an excellent review. Table 1 illustrates the most common findings among these cases.

Since the clinical presentation is variable because of multiple organ involvement, the major pathophysiological presentations will be discussed separately.

Diabetes Mellitus

The diagnosis of diabetes mellitus cannot clinically be differentiated from adult onset diabetes. Clinical diabetes will occur at some point during the course of the disease in 60 to 80% of affected individuals. The complications commonly associated with diabetes mellitus (neuropathy, nephropathy, retinopathy, etc.) occur in a similar fashion and frequency as that seen in diabetes without iron overload. At one time, it was thought that these complications occurred less frequently in hemochromatosis. Subsequent studies have not confirmed this observation. This erroneous conclusion reached in earlier reports was probably due to a shorter life span resulting from complications of iron overload. In the earlier studies, diabetes mellitus was not present for a sufficiently long period of time to produce the expected complications. With the advent of insulin therapy, improved supportive care, and possibly the venesection therapy, the complication rate due to abnormal carbohydrate metabolism has been roughly equivalent to that observed in isolated diabetes mellitus.

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Fig. 1: Liver biopsy demonstrating iron deposited diffusely in parenchymal cells of precirrhotic hemochromatosis (arrows).



Fig. 2: Liver biopsy illustrating cirrhosis with regenerative nodule with iron deposits in parenchymal and mesenchymal cell. Parenchymal cell iron deposit appears mainly in the peripheral cells of the nodule (curved arrows). Fat globules also seen in parenchymal cells of nodules (straight arrows).

The etiology of diabetes mellitus in hemochromatosis has at least three components: 1) a diminished insulin reserve due to the presumed iron deposition in the islet cells,⁵ 2) increased insulin resistance at the tissue level that occurs and is associated with cirrhosis and 3) an increased incidence of diabetes in the unaffected family members which suggests a genetic basis for the diabetes, rather than an acquired trait as a result of iron deposition in the pancreas.

Cirrhosis

Hepatic involvement invariably occurs in untreated disease. In the precirrhotic stage, presentation of signs of advanced liver failure are unusual. Most patients with hemochromatosis will show signs of hepatomegaly on physical examination. Clinical evidence of portal hypertension is infrequent in contrast to its common occurrence in the alcoholic or the post hepatic cirrhotic. The hemochromatitic rarely presents with the classic picture of hepatic decompensation of the alcoholic with cirrhosis, *i.e.*, ascites, edema and jaundice.

Skin

The most common clinical finding in idiopathic hemochromatosis is increased skin pigmentation. However, since hyperpigmentation associated

with hemochromatosis is difficult to distinguish from similar changes due to sun exposure, it is often overlooked unless specifically sought. The increased skin pigmentation is due to an increased melanin content in the melanocytes rather than an excess iron deposition in the skin, as formerly thought. Patients with histologically demonstrated excess iron deposition (in addition to the increased melanin content) in their skin characteristically have a slate gray appearance.

Additional cutaneous manifestations frequently found include hair thinning, ichthyosis (koilonychia) (~45-50%), various nail abnormalities and iron deposits in the sweat glands, a unique finding in idiopathic hemochromatosis.⁶

Arthropathy

As illustrated in one of our two cases, joint involvement in hemochromatosis is not uncommon ranging from 25 to 50% and usually exists in two forms. Chondrocalcinosis affects primarily the large, weight-bearing joints. Small joints are also involved, especially those of the second and third metacarpophalangeal joints, but the pathophysiology is poorly understood. Some observers have emphasized the right hand as being more severely involved than the left. Patients who develop hemochromatosis after the age of 50 are

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TABLE 1

MOST COMMON CLINICAL FINDINGS IN SYMPTOMATIC HEMOCHROMATOSIS⁴

FINDING	%
Hepatomegaly / Cirrhosis	92
Skin Pigmentation	90
Diabetes Mellitus	76
Splenomegaly	50
Cardiac Symptoms	37
GI Symptoms	37
Ascites	35
Neurologic Symptoms	35
Psychologic Changes	30
Sexual Hypoplasia	24
Arthropathy	22
Atrophy of Testes	18

more prone to develop joint symptoms. The radiological characteristics of this arthropathy usually include small, subarticular cysts with variable loss of cartilage, sclerosis and attenuation of the bony cortex. Cystic changes are less likely to be seen in the large joints, while chondrocalcinosis (psuedo-gout) may be prominent.^{7,8} Although the association of the psuedo-gout syndrome with idiopathic hemochromatosis is well documented, the pathophysiology of this association is somewhat speculative. It has been suggested that the accumulation of excess iron in the joint fluid has an inhibitory effect on the pyrophosphatase enzyme, thereby promoting calcium pyrophosphate crystal deposition. This does not, however, adequately explain why the patients who are treated with venesection often develop symptoms for the first time during the depletion of iron stores.

Cardiac

Cardiac involvement occurs after infiltration of iron into the myocardium, leading to congestive heart failure. Congestive heart failure is reported as the cause of death in approximately 33% of all case studies.⁹ Once the patient develops cardiovascular complications, a progressive downhill course frequently ensues. Earlier in the disease, and in those patients who develop the manifestations at a younger age, a more serious cardiac

TABLE 2

LABORATORY STUDIES FOR DIAGNOSIS OF IDIOPATHIC HEMOCHROMATOSIS

1. Serum Iron
2. Iron Binding Capacity
3. Transferrin Saturation
4. Serum Ferritin Measurements
5. Percutaneous Liver Biopsy With Prussian Blue Staining For Iron

complication relates to the development of arrhythmias, also felt to be due to iron deposition in the specialized conducting system (sinoatrial and atrioventricular nodes). Arrhythmias observed in young patients tend to be difficult to treat and often denote a poor prognosis. The congestive failure aspect of hemochromatosis is variable ranging from biventricular failure to signs and symptoms indistinguishable from constrictive pericarditis.

Endocrine

In addition to the presence of diabetes mellitus, hypogonadism is also, but less frequently, seen. Iron deposits in the testes do not adequately explain the presence of testicular failure. Alternative views have emphasized the association of cirrhosis and hypergonadism per se because testicular atrophy is frequently observed in cirrhotics from many causes. Plasma luteinizing hormone has been reported to be low in a high percentage of patients with testicular atrophy,¹⁰ but this has not been confirmed by others.¹¹ Measurements of pituitary functions, such as growth hormone, have had variable results. It seems likely that the multiple factors are responsible for the diminished testicular function and size and including testicular deposition, a diminished luteinizing hormone and the cirrhosis.

Laboratory Evaluation

The laboratory diagnosis of idiopathic hemochromatosis rests on the demonstration of excess iron stores in the liver and other organ tissues. Initial laboratory screening studies (Table 2) should include measurements of serum iron and total iron binding capacity (T.I.B.C.) An

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increased serum iron will be found in over 90% of the patients who are subsequently shown to have excessive iron stores on biopsy. The 10% of the patients with normal serum iron may have additional factors such as chronic inflammation or neoplasm to account for the relative decrease in serum iron. Classically, the serum iron is increased and the iron binding capacity is decreased, while the percent of transferrin saturation is increased in almost all patients.

Additional studies used to measure increased iron stores included serum ferritin determination by radioimmunoassay and desferrioxamine excretion test. Serum ferritin levels may be elevated in rheumatoid arthritis and Hodgkin's disease and not necessarily reflect increased iron stores. However, in idiopathic hemochromatosis the serum ferritin level is usually higher than those observed in these conditions. Serum ferritin may be elevated in a variety of acute and chronic necroinflammatory conditions of the liver, such as massive hepatic necrosis. Correlation between serum ferritin and serum iron or iron binding capacity has not been uniform. Although the ferritin level may be useful in identifying cirrhotic patients with iron overload, it may be normal in the precirrhotic form of hemochromatosis.

The desferrioxamine excretion test may be helpful in documenting the presence of excess iron overload. In normal individuals, with normal iron stores, when 1 gm of desferrioxamine is given intramuscularly, the 24 hour urinary excretion of iron is less than 2 mg. Patients with idiopathic hemochromatosis generally have values greater than 10 mg per 24 hours. Values in 2 to 10 mg range form a gray zone, since patients with iron overload secondary to ethanol abuse and individuals in the precirrhotic hemochromatitic state may have values in this range. This test requires an intramuscular injection of desferrioxamine with complete and accurate collection of a 24 hour urine sample in iron free containers in order to allow for accurate interpretation of the results. Desferrioxamine excretion test does not provide a definitive diagnosis of hemochromatosis based on a single value, but does provide additional information regarding increased iron stores.

The ultimate diagnosis of hemochromatosis resides with the demonstration of excessive iron stores at the tissue level. A liver biopsy must be performed to establish the diagnosis. Normal liver contains less than 0.25% iron, expressed as dry weight, while patients with idiopathic hemochromatosis have values that exceed 2%. Several techniques have been used to quantitatively measure the liver iron content, and to correlate the measurements with the total chelatable body iron stores. This method provides a precise determination of hepatic iron content, and has merit for investigational purposes. However, a semi-quantitative assessment of iron stores by Prussian blue staining reaction for iron and graded as a percentage of cells filled with iron can provide adequate information for rapid diagnosis. Usually in idiopathic hemochromatosis more than 10% of parenchymal cells contain stainable iron. The more sensitive tests have their usefulness in the precirrhotic stages, but add little to the knowledge for clinically caring for the patient or their relatives.

Familial Recurrence

Due to the hereditary factors associated with idiopathic hemochromatosis, it is desirable to identify asymptomatic relatives at risk of developing the disease. Measurements of serum iron, transferrin saturation, chelatable iron stores or ferritin have not correlated well with total body iron stores in some studies.¹² In these studies, iron accumulation has been primarily in hepatocytes, with little if any iron deposition in the reticuloendothelial cells characteristically seen in the more advanced stages of the disease. Some authors have reported elevated serum ferritin levels in precirrhotic patients with increased iron stores. Clinically, these observations suggest that if the serum ferritin level is elevated in a relative of a known case of hemochromatosis, total body iron stores are likely to be elevated, as well as the serum iron and transferrin saturation. However, a normal serum ferritin value does not exclude the possibility of iron overload. The only way to conclusively determine the presence or absence of iron overload in individuals with elevated se-

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rum iron or transferring saturation levels is to document increased iron stores by percutaneous liver biopsy. Desferrioxamine excretion test can help identify those individuals who warrant a liver biopsy.

Pathogenesis

Pathogenetic factors which might account for the development of hemochromatosis include: (1) genetic aspects, (2) abnormal iron absorption, (3) deficiency of apoferritin, and (4) blood transfusions.

Genetic Aspects

The data suggesting that a genetic factor(s) plays an important role in the primary idiopathic form is based on the high familial incidence of pathological iron storage studies which demonstrate evidences of hypersideremia in 50% of the male progeny indicating a dominant mode of transmission.

Bomford and colleagues¹³ suggested that two genes are necessary for the full manifestation of idiopathic hemochromatosis. Both are believed to be situated on chromosome No. 6 in linkage disequilibrium with HLA-A3, being responsible for the increased plasma/storage iron exchange. An increased occurrence of histocompatibility antigens HLA-A3 and HLA-B14 have been reported in hemochromatitic patients, HLA-A3, 78.4% vs 27.0% and HLA-B14, 25.5% vs 3.4% by Simon *et al.*¹⁴ It must be emphasized that the association of HLA-A3 and HLA-B14 antigens in hemochromatosis, although supporting the view of genetically determined metabolic error, does not elucidate the mode of inheritance of the disease since these findings are compatible with a monogenetic recessive, a monogenetic dominant or a polygenetic transmission.

Iron Absorption

The fundamental question in hemochromatosis is whether the excessive iron storage is due to increased retention or decreased excretion. Heilmeyer¹⁵ demonstrated that iron metabolism is held in balance by regulation of the input and not by variation in the output. When iron deposits

reach a physiologic maximum intestinal absorption of iron decreases.

In hemochromatitic patients, in contrast to healthy subjects, there is no significant rise in the serum iron in response to oral doses of iron. The absorption curves in hemochromatitics are exceptionally flat, implying that intestinal absorption is much less than normal in such cases. Intravenously injected iron disappears from the blood much more rapidly than in normal subjects, indicating a rapid migration of iron from the plasma that does not allow a rise in response to the oral doses, *ie*, it reaches the tissue too quickly. There is a connection between this accelerated passage of iron from the blood and the high degree of iron saturation of transferrin. Iron binding capacity of transferrin is almost completely saturated in hemochromatosis. In such cases, not all the iron passing from the intestine can be bound to transferrin, and consequently rapidly migrates to various tissue. The normal physiological transport mechanism is, thus, no longer functioning efficiently. Therefore, the determination of the rate of intestinal absorption in hemochromatitics, based on serum iron levels, leads to false conclusions since the iron disappears too rapidly from the blood and does not allow the serum iron to increase. It is presently believed that the rate of intestinal absorption of iron, especially in the early stages of the disease, is greatly increased but diminishes in the more terminal stages.

Secondly, the increase in the rate of iron absorption above the normal level need only be very slight. This can account for the number of decades required for excess amounts of iron to be taken up and for the earlier occurrence of the disease in men vs women under the age of 45. This also accounts for some prior investigators reporting normal rates of iron absorption in hemochromatitics. In the later stages of the disease, the rate of absorption may well be normal, thus indicating that the blocking mechanism is no longer functioning. Iron continues to accumulate in the tissue, although the organism is already completely saturated. One would have expected that individuals with excessive iron load should have a diminished, not normal, iron absorption.

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Deficiency of Apoferritin

Initially, it was thought that cases of extreme protein deficiency, as observed in German soldiers in captivity in Russia after WWII, led to an apoferritin deficiency. This in turn caused disturbances of absorption in the intestinal mucosa, giving rise to increased iron absorption. However, specific studies for the apoferritin did not demonstrate any deficiencies. In most cases the supply of ferritin to the organs is greater than normal.

Blood Transfusions

It has been believed that repeated blood transfusions might give rise to hemochromatosis. At first, this explanation seemed simple enough, with the iron delivered to the system along with the transfused erythrocytes, not being excreted, but deposited in the organs. The pattern of distribution, however, differs in those with primary hemochromatosis from transfusion hemosiderosis. In transfusion hemochromatosis a larger quantity of iron is found in the spleen due to sequestration of the transfused erythrocytes and in the reticuloendothelial cells, rather than the hepatocytic cells. Some studies of transfusion hemosiderosis have shown more iron in the liver than has been transfused, leading some to believe that there may be patients of affected families in whom the hemochromatosis is present in a latent form, becoming manifested as a result of transfusions.

Heavy Metal Poisoning

Toxic damage from heavy metals, such as copper, arsenic and lead give rise to a clinical picture closely resembling that of hemochromatosis. Animal studies have not been able to demonstrate liver damage similar to that of copper and arsenic. There is evidence indicating that hemochromatosis, as well as other liver disease due to an accumulation of heavy metals, develops only in livers previously damaged from other causes, such as alcohol, viruses and other environmental agents.

Treatment

The treatment of idiopathic hemochromatosis involves the removal of iron excess and therapy for its complications such as diabetes mellitus, liver and heart failure, hypogonadism, etc. The iron from the body can be removed by 1) phlebotomy, 2) long-term use of iron chelating agents.

Phlebotomy is the most efficient way to remove iron and also is faster and cheaper than long-term use of iron chelating agents. Five hundred ml of whole blood contains about 250 mg of iron; ferrokinetic studies have shown that the daily production of RBC by a normal bone marrow is about 20 ml of RBC per day. Under maximal stimulation a normal bone marrow can increase the RBC production about six to eight times provided that the bone marrow has the necessary raw material thereby increasing the RBC output up to 120 ml per day or 840 ml per week. This is the equivalent of about 1,700 ml of whole blood per week. Patients with idiopathic hemochromatosis can stand phlebotomies of 500 ml twice or three times per week without developing significant anemia.

The duration of phlebotomy therapy depends on the amount of the total body iron and the frequency of the phlebotomies. The end of the therapy is heralded by a rapid fall of the serum iron and elevation of the T.I.B.C. The hemoglobin soon falls to less than 11 gm and the RBC become microcytic and hypochromic. The serum ferritin usually is less than 10 $\mu\text{g/l}$.

If the patient remains untreated the serum iron will increase and the saturation of transferrin rapidly approaches 100% again, but if subsequent phlebotomies are performed the features of iron deficiencies are rapidly restored. Maintenance phlebotomies should be performed every three to four months to avoid reaccumulation of iron and should be performed for life.

Bomford and Williams¹⁶ compared 85 patients treated with phlebotomies and 25 untreated patients with idiopathic hemochromatosis. The five year and 10 year survival was 66% and 32% respectively for the treated group, and 18% and 6%

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respectively for the untreated group. Patients feel more energetic with removal of iron by repeated phlebotomy. The liver and spleen decrease in size, the liver function tests improve, the hyperpigmentation of the skin and heart failure reverses, and the diabetes mellitus improves in 30-40% of patients. However, removal of iron has little or no effect on hypogonadism, arthropathy or incidence of hepatoma. In Bomford's series 29% of the treated group developed hepatomas; the incidence of hepatoma in the untreated group was only 19%. The higher incidence of hepatomas do not decrease with phlebotomies except when it is done during the precirrhotic stages.

The alternate modality of therapy is the long-term use of iron chelating agents. This mode of therapy should be used only when phlebotomies cannot be performed, *eg*, patients who are severely anemic or hypoproteinemic. Two chelating agents have been used—diethylenetriamine penta acetic acid (DTPA), a non-specific chelator, and desferrioxamine, a specific chelator. The desferrioxamine forms a more stable complex with iron than does DTPA, but on a weight basis the two compounds elicit comparable degrees of urinary iron excretion. DTPA given by intramuscular injection is painful but has the advantage that large doses can be given by intermittent intravenous infusion and 4 to 8 mg can be given at the time of blood transfusions; recommended dose is 2 mg per unit. Desferrioxamine is less well tolerated than DTPA by the intravenous route and quantities greater than 2 gm are not recommended. However, it can be given daily for long periods by intramuscular or subcutaneous injection.

Propper et al¹⁷ has shown that a simple intramuscular injection of 750 mg of desferrioxamine produces a urinary excretion of iron of 14.5 mg in 24 hours, but when this dose is given in a continuous intravenous infusion, the amount of iron excreted in the urine is about 45 mg. A dose as high as 16 gm of desferrioxamine given in a continuous intravenous infusion can increase urinary iron excretion as much as to 180 mg. When given in a continuous subcutaneous infusion the effect of desferrioxamine on urinary iron

excretion is only 90% as effective as continuous intravenous infusion.

Removal of the excess iron from the body in patients with hemochromatosis is associated with improvement of the histological picture of the liver biopsies, but it is questionable whether the liver cirrhosis can be completely reversed. Weintraub and Crosby¹⁸ and Powell and Kerr¹⁹ have reported several cases treated with phlebotomies. They noted a return to a more normal architecture of the hepatic lobules and marked disappearance of fibrosis over a period of time. These cases of liver cirrhosis reversed unfortunately are not the most common among those with advanced disease.

There still remains some controversy regarding the prophylactic treatment of asymptomatic relatives of known cases of hemochromatosis with elevated total iron stores. Presently available evidence seems to support the need for maintenance phlebotomy three to four times a year to the point of iron deficiency to prevent tissue iron accumulation. Follow-up liver biopsy may be indicated depending on the subsequent clinical course.

In summary, although certain aspects of idiopathic hemochromatosis remain controversial, we emphasize that (1) the disease may be more prevalent than currently recognized, (2) a high index of suspicion is necessary to identify those patients in the precirrhotic phase of their disease and their relatives, to prevent or reverse the pathological changes through prophylactic phlebotomy, (3) the effectiveness of prophylactic therapy has not yet been fully established, and (4) the advisability of enrolling such patients in a prospective study to determine what effects it may have on the irreversible pathological lesions of testicular atrophy, arthropathy and primary hepatocellular cancer.

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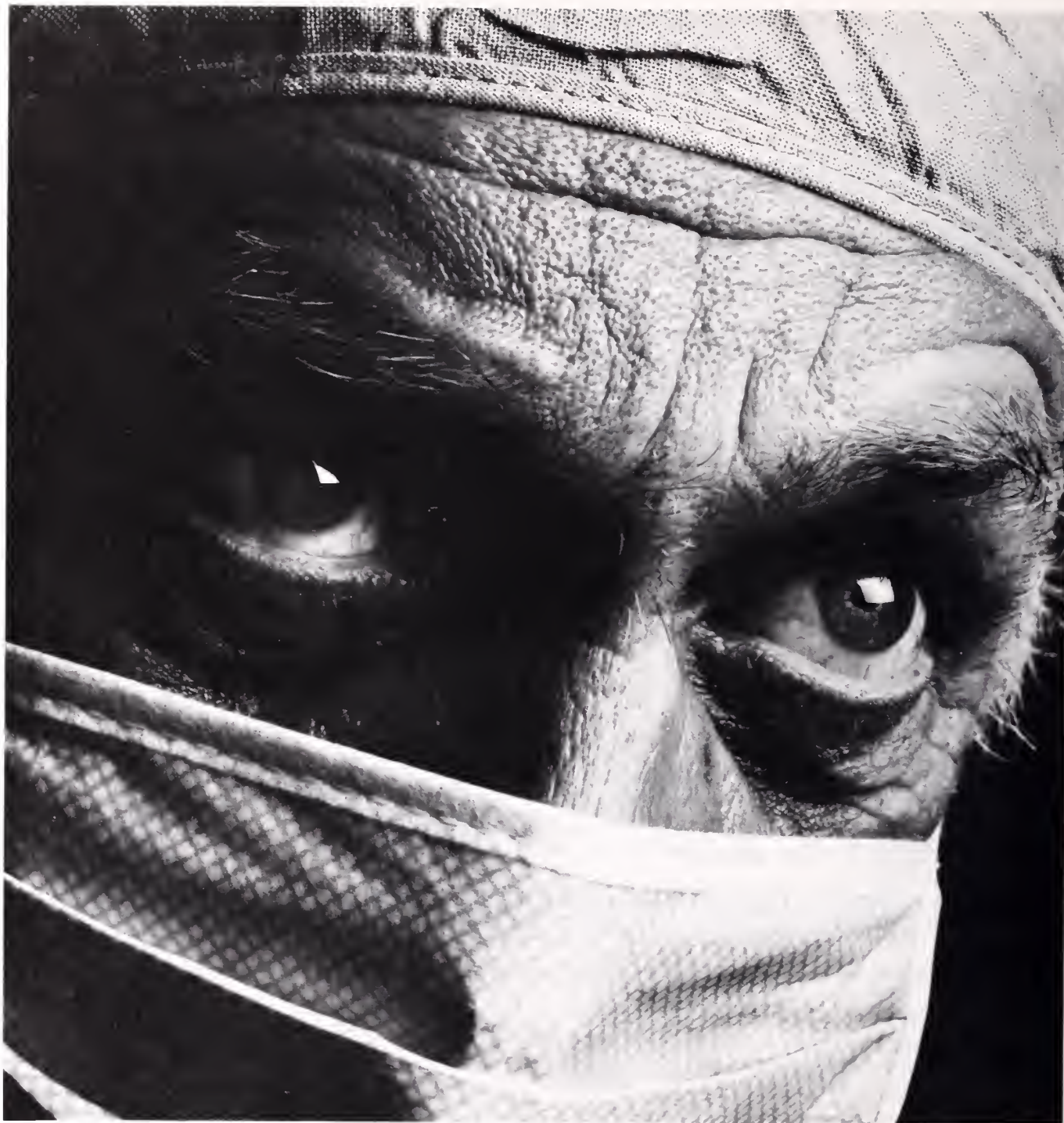


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Post Mastectomy Breast Reconstruction

A number of operative procedures have been developed in the recent years which deal with reconstruction of the female breast following mastectomy. Approximately 90,000 women will develop breast cancer each year. A significant number of these patients will be candidates for breast reconstruction.

Complete eradication of the cancer must be considered the top priority and the extirpative operation must not be compromised in order to simplify later reconstruction. Following this, reconstruction of the breast becomes a matter of variable priority depending upon the patient's desires and the likelihood of recurrent disease. A good deal of anxiety may be alleviated in the patient undergoing mastectomy simply by the knowledge that reconstruction is possible. Whenever a woman considers the advantages and disadvantages of breast reconstruction, one of the factors she weighs must be the chance of recurrence. However, only she can make the ultimate decision, depending upon her own priorities.

The timing of reconstruction following mastectomy remains somewhat controversial even among reconstructive surgeons. Immediate reconstruction is being performed by a few surgeons. Most wait at least six to 12 months in order to allow adequate wound healing

and softening. Of course the suitability of the patient for reconstruction as well as the timing is influenced by the patient's age, the size of the tumor, histology of the tumor, and the presence or absence of axillary nodal involvement. It is generally accepted that reconstruction should be postponed until the completion of chemotherapy because of the possible deleterious effects chemotherapy may have on wound healing.

The method of reconstruction will vary depending upon the defect. In many patients who have undergone a modified radical mastectomy only a subpectoral prosthesis will be required. On the other hand, those who have lost the pectoralis major will require additional skin and soft tissue, usually in the form of a latissimus dorsi myocutaneous flap.

It is probably better to delay reconstruction of the nipple-areolar complex so that it can be positioned more accurately. This can usually be performed as an outpatient procedure. Donor sites include the external ear, the upper medial thigh, the labia, and the opposite nipple and areola. The procedure of "banking" the nipple-areolar complex in the groin has generally been discarded because of severe loss of pigmentation as well as the inherent risks of transplanting malignant cells.

John J. Whitt, M.D.

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Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown, but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

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*Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

†All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

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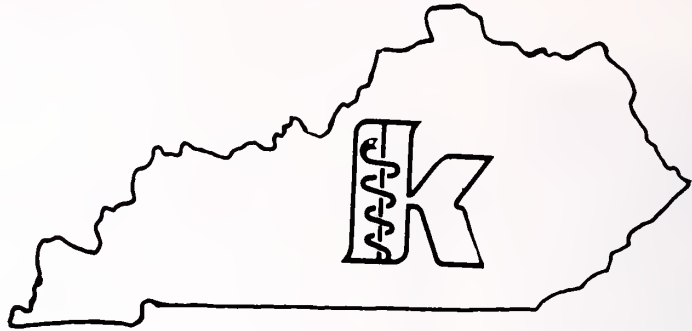
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LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the *Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

In Kentucky there are over 7,000 people who are blinded by corneal diseases. Virtually all of them could have their vision restored by a relatively simple and highly successful surgical procedure known as penetrating keratoplasty or corneal transplantation.

To help in the fight against corneal blindness, which accounts for 20% of the total number of the blind population, Kentucky has two eye tissue banks. The primary purpose of the eye banks are to secure donor eye material from deceased individuals and distribute the tissue to ophthalmic surgeons, who specialize in corneal disease, for transplantation.

The Kentucky Lions Eye Banks are located in Louisville in association with the University of Louisville School of Medicine and in Lexington at the University of Kentucky Medical Center. The eye banks are supported by their respective medical schools and the Kentucky Lions Eye Foundation in Louisville.

The eye banks depend solely upon donations received through permission of the next of kin at the time of death. This authorization is carried out under the provisions of the Kentucky Anatomical Gift Act (1980). The help of physicians and nursing staffs in all Kentucky hospitals is desperately needed for the eye banks to achieve their maximum success. Unfortunately, the most advantageous time to secure this much needed eye tissue is at the time of death of potential donors. The shock and anxiety of families is at its peak at this time. Many physicians and nurses shy away from disturbing families anymore than necessary at this time. However, what they often fail to realize is that many times this opportunity to ask for corneal, or any organ donations, could be a chance to aid families with their grief. Letting families know that their loved one's death could possibly restore sight to a blind person can ease the pain of separation from the deceased. It may also help them to know their loved one's death is not totally in vain.

The task of talking with a family is a difficult one. It requires tact and sensitivity on the part of the doctor or

nurse. Physicians and nurses who regularly discuss this opportunity with families have found the following approach to be effective: "There are a number of people in Kentucky who are blind. They could be given sight through a corneal donation. Through his (her) eye donation your husband (wife, etc.) could give sight to two people. Do you think he (she) would have wanted this"? Assure the family that the appearance of the eye donor remains the same, so they can plan the type of funeral they wish. There is no expense to the donor's family, as the cost is assumed by the eye bank.

The eye bank prefers to remove whole eye tissue, but can take only the corneas. The sclera tissue can be used for ocular plastic surgery and can be implanted in the gums of people in danger of losing their teeth.

One of the few contraindications to using corneas for transplants is septicemia. Tissue from donors with cancer, however, can be used for transplant surgery. Research also benefits from the availability of eye tissue, including cataract and glaucoma studies, and methods of preserving corneal tissue for extended periods in glycerin and cryopreservation. The fact that the donor wore glasses or had other eye problems does not rule out using the corneas for transplants. There is also no correlation between the age of the donor and the success rate of the transplant.

In the Lexington and Louisville metropolitan areas, a technician or resident physician is on call at all times to perform the sterile enucleation (removal) in hospitals and funeral homes. The procedure takes about 20 minutes and should be done within six hours after death. The tissue is then taken to the eye bank where it is examined to determine suitability for transplant.

The long range aspects of corneal transplant surgery look bright. The success rate of this surgery is approaching a 95% success rate. And studies are currently underway in tissue matching to improve the chances for the 5% of patients with repeated graft failures. Also new methods of preserving tissue for several weeks are being researched at this time.

Letters

Kentucky physicians and nurses can make a monumental contribution to sight restoration. Regularly talking with the families of deceased patients about eye donations means the difference for thousands of Kentuckians who will remain blind or be given the gift of sight. They can be returned to normal activities in life, work, and their communities. For more information, contact the nearest Eye Bank: Kentucky Lions Eye Bank, University of Kentucky 800 Rose Street Lexington, KY 40536, 606-233-5866 or Kentucky Lions Eye Bank, University of Louisville, 301 E. Muhammad Ali Blvd. Louisville, KY 40202, 502-584-9934.

James R. Martin
Eye Bank Coordinator

To the Editor:

The Kentucky Sudden Infant Death Syndrome Information and Counseling Project is a Unit within the Maternal, Infant and Family Planning Branch, Division for Maternal and Child Health Services, Bureau for Health Services, Department for Human Resources.

The Project is Federally funded.

In January, 1978, the Kentucky General Assembly passed House Bill 186 which established a SIDS law for Kentucky.

The purpose of the Project is to alleviate the psychological trauma suffered by those Kentucky parents experiencing a death due to SIDS by providing resources and coordination for the dissemination of information, education and grief counseling.

The Project provides workshops throughout the State to train professionals and para-professionals who will in any way be in contact with a SIDS family.

Pamphlets, films, video tapes and recordings concerning SIDS are available.

Autopsies are strongly encouraged for babies who are suspected of SIDS and may be paid for by the SIDS Project.

Ida Lyons, R.N.
SIDS Coordinator
Division for Maternal and Child
Health Services

To the Editor:

Advertising has traditionally been ignored by the medical profession. The prohibition of time-honored marketing techniques in the health care arena has been through various special interest societies. A recent ruling by the Supreme Court has upheld the right of professions to advertise their services. In the fields of law, optometry, and dentistry, advertising has been instrumental in enhancing competition, lowering prices, and increasing consumer awareness. Previously opposed to the promotion of physicians' services to the public, the American Medical Association has changed its stand under court pressure. Despite a high degree of apprehension in regard to the institution of advertising by professionals, there is little evidence that it would affect the practice of medicine in this country.

Introduction

In the health professions, advertising has been a controversial issue. Traditionally, professional societies have discouraged or prohibited media promotion efforts by their members. Many professions have belatedly considered themselves out of the mainstream of the competitive marketplace. However, recent rulings of the Supreme Court and lower federal courts have upheld the right of the health care profession to advertise. Furthermore, the introduction and expansion of advertising in several health related professions has apparently resulted in more competitive pricing, higher consumer awareness, better service, and decreased overall cost. Thus, advertising and mass media marketing techniques have broken into the formerly untouched territory of the health profession.

This report will review the historical perspectives of advertising and marketing of the legal, optometric, dental and medical professions, recent developments, and future trends. The opinions expressed are those of the authors.

Historical Perspectives

Prior to 1975, the health and legal professions operated without investigation into restraint of trade or competition. The landmark decision of the U.S. Supreme Court, *Goldfarb vs. Virginia State Bar* (1975) asserted that legal societies were subject to antitrust litigation.¹ The minimum fee schedule imposed by the Virginia State Bar Association was abolished by court order because it constituted price fixing.¹ In anticipation of further high court decision, the American Bar Association membership voted to liberalize their pre-

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viously restrictive advertising code in 1977. The following year, the Supreme Court upheld the right of lawyers to advertise.² Currently, newspaper advertisements as well as detailed yellow-page telephone notices include fee schedules, special qualifications, educational background, and experience.² Thus, professional exemption from anti-competitive activity was effectively denied for the legal profession.

In 1975, the Federal Trade Commission filed a suit against alleged anti-competitive practices promulgated by the American Medical Association.^{3,4} The apparent intent of the Commission was to seek a competitive market solution to the inflationary cost spiral within the profession. The major focus of the investigation was the alleged anti-competitive code of the American Medical Association.⁵ Section VI of the American Medical Association principles of medical ethics contained vague proscriptions involving solicitation of patients, and conditional approval of advertising. The FTC asserted that interpretation of these guidelines by local societies might result in a violation of the Sherman Anti-Trust Act (unfair trade practices).

In 1976, another Supreme Court decision cleared the way for competitive advertising of prescription drug prices by pharmacists.^{6,7} Generic drug sales have become the rule rather than the exception in large drug store chains as a result.

Even before the resolution of the FTC versus AMA suit in 1978, considerable controversy over the issue of advertising and solicitation in the medical profession was voiced.^{4,8-14} Geist presented a heated, almost indignant reply to the FTC probe and stated allegations from the physicians' viewpoint.⁹ Avellone and Moore outlined the rationale behind the investigation and raised a credible counter-attack against the Commission.³ Relman presented a moderating stance, vacillating on the extent of commercialism that would be beneficial to the profession.⁸ Little has been published in regard to the decision (in favor of the FTC) in late 1978, which was appealed by the American Medical Association. In July 1980, the AMA revised its stand on advertising and solicitation, but did not change the opinion and report section of its principles of medical ethics. The Federal Trade Commission was victorious over the American Medical Association in an Appeals Court decision rendered in October, 1980.

The Impact of Advertising in the Health Professions

A number of studies are available focusing on the impact of advertising in optometry and dentistry.

While the services provided by these professions are not strictly analogous to those in the more expansive medical area, enough similarity is present to allow for general comparisons.

In the optometric marketplace, several studies have revealed substantial benefit both to consumer and practitioner as a consequence of the introduction of advertising. Utilizing consumer surveys and spot checks of eyeglass prices, Benham found that prices were higher in states having more stringent advertising regulations.¹⁶ It was also clear that the utilization of eyeglasses was lower in the absence of advertising, concomitant with higher prices. Data were derived in a systematic fashion from surveys encompassing 10% of all optometrists in the United States.^{17,18} Critics of Benham's surveys claim that restrictions on advertising promoted higher quality care which was a justification for higher prices.¹⁸ The price of comparable eyeglasses and examination on the other hand, were found to be 10% higher (statistically significant) in states imposing advertising restrictions. This study was based on a survey of more than 1,000 optometrists and opticians. The presence of advertising bans on both opticians and optometrists appeared to be synergistic in raising prices.¹⁹ The impact on professional income was not reported.¹⁹ Thus, results from the research show that advertising in the optical profession did not adversely affect the quality of service, but did have a beneficial effect on the price of service in eyewear.

In 1977, following the Supreme Court decision (Bates versus State Bar of Arizona) in favor of lawyer advertising, the American Dental Association adopted a new policy on advertising by dentists.²⁰ In a statement issued from the House of Delegates of the American Dental Association:

"Constituent and component societies of the American Dental Association should immediately cease initiation of any disciplinary proceedings against any member who advertises in the public press the availability of their services and fee which they would charge for routine dental procedures."²⁰

A survey was conducted of 162 dentists in Denver, Kansas City and Memphis.²¹ While most dentists believed that advertising was a viable way to communicate with the consumer, they did not approve of either limited or unrestricted advertising.²¹ Furthermore, they thought that advertising would increase prices and not enhance the quality of care.²¹

Meskin surveyed the graduating class of the University of Minnesota School of Dentistry.²⁰ Only one-

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quarter of those surveyed believed that advertising would reduce fees, and one-third thought that the fee structure had little or no influence on consumer preferences.²⁰ This contrasted sharply with a consumer survey in the same area revealing a belief that advertising would lower prices (66%), but lower prices alone would not influence the consumer's selection of a dentist.²⁰ The price of dentures has decreased since the widespread advertisement of these appliances has become commonplace. Over 70% of the dentists surveyed believed that advertising would adversely affect their professional image, whereas only 37% of consumers agreed with this viewpoint. Furthermore, both dentists and consumers were of the opinion almost unanimously that quality and competence were difficult to advertise.²⁰ Both groups shared the apprehension of unscrupulous practices and fraud. Meskin concluded that there were several potential benefits to advertising of dental services, both from the consumer and dentist's standpoints.²⁰ While widespread advertising would most likely increase competition and lower prices in the dental profession, consumer preference patterns would probably not change significantly.²⁰

Much less data are available on the impact of advertising in the medical profession. While most physicians in a survey taken by Darling and Busson were of the opinion that advertising was a valuable means in which to communicate with consumers, the majority did not feel that advertising would make the consumer more aware of the qualifications of the practitioner or be of aid in consumer choice.²¹ Most physicians stated that advertising would actually increase the price of services, have little impact on consumer selection, and adversely affect the public image of physicians. Furthermore, physicians disagreed that competition would be increased by advertising, and believed that it would eventually lead to increased governmental intervention and regulation.²¹

Kwon and his associates studied consumer awareness of health care costs and their preference schedules.²² The majority of respondents claimed ignorance of hospital and physician costs, but stated an overwhelming preference for public advertising of fees and service availability. More than 60% of consumers believed that advertising would reduce the cost of health care.²² Survey sampling of the physician population serving the same consumers revealed a strong opposition to advertising, and disagreement on cost reduction by the same.²²

Methods

In order to obtain a representative estimate concerning the opinions of physicians practicing in the state of Kentucky, a survey was distributed to the registrants at the annual meeting of the American College of Physicians (regional meeting) in Louisville, Kentucky on November 15, 1980. Physicians attending this conference were asked to voluntarily complete the questionnaire.

Results

The results of the survey of the physicians' are compiled in Table I. (Table I)

There was a very strong sentiment against advertising by the majority of respondents. Most physicians were in favor of the listing of qualifications and specialty training in the yellow pages. However, an overwhelming majority were opposed to advertisement in the lay media. In addition, over 80% of participants indicated that they would not advertise their fees or services even if it were legally and professionally acceptable. The majority of physicians did not feel that advertising would either increase competition or lower fees. There was a very strong sentiment that advertising would not influence consumer selection of a physician, despite differing fee schedules. Most physicians felt that advertising would adversely affect the image of medicine and would lead to fraud and hucksterism. Surprisingly enough, there was opposition to hospital advertising as well as physician advertising.

Of the physicians answering the questionnaire, 78% were in private practice, 8% in academic medicine, 19% employed by the Veterans Administration Hospital, 4% housestaff trainees, and 1% in the National Health Service Corps. The response to the questionnaire represented approximately half of the registration of the regional meeting of the American College of Physicians.

Discussion

It is obvious from the survey results presented in this report, that physicians are strongly opposed to advertising their services and fees. Physicians stated that unrestricted advertising would adversely affect the public image of the medical profession. Advertising would have little benefit in aiding patients in their selection of a physician, and would probably lead to fraud and hucksterism. The participants in the survey were of the sentiment that advertising would neither increase competition nor decrease medical fees. Consequently, it would appear that the recent Federal

Letters

Trade Commission vs. American Medical Association decision would have little, if any, impact on internists practicing in the state of Kentucky, if the internists surveyed in this study are representative.

As opponents of physician advertising aptly point out, the overwhelming bulk of their highly publicized medical "breakthroughs" have been in cases of fraud and false representation.²³ Hucksterism and testimonial medicine dominated the field in the 1800's and early 1900's, with promises of cure-alls and tonics.²³ In the lay press, Dr. John R. Brinkley claimed to have success in restoring libido in aging males utilizing various concoctions and goat gonad transplants.²³ While this case resulted in revocation of licensure, it involved a costly and lengthy litigation process that was eventually appealed all the way to the U.S. Supreme Court.

Ward has promulgated a number of cogent arguments in favor of a physician advertising ban.²³ He asserted that medicine was not a trade and the services did not involve merchandise. Consequently, the morals of the marketplace are not applicable because of compassion and personal involvement which are universally involved in diagnosis and treatment.²³ In addition, Page asserted that the cost of advertising would ultimately be paid by consumers, thus increasing the cost of health care.²⁴

Advertising has been viewed by the AMA and the majority of practicing physicians as a threat to professional integrity and to the quality of care rendered. Results from the study reported here and other recent surveys have shown that most physicians would not advertise regardless of liberalization of restrictions by federal, state and local societies. Furthermore, consumer surveys have revealed a negative correlation between low prices and physician selection. Despite the rise in malpractice rates and consumer dissatisfaction in the media, a recent survey showed that 75% of consumers still have a great deal of confidence and respect for their physicians.²⁴ Thus, advertising poses no threat to the practice of medicine, despite recent furor in the press and courts.

Apprehension concerning the return of hucksterism, misrepresentation and false promises is unfounded. A repeat of the Brinkley fiasco in 1930's is highly unlikely in today's medical climate. The rise of professional standards review organizations (PSROs), hospital staff committees, state, local, and federal societies, and sub-specialty boards is a powerful deterrent to aberrant practices. The dramatic increase in health maintenance organizations (HMOs) and multi-specialty group practices provides additional protection from hucksterism.

TABLE I—PHYSICIANS' SURVEY ON ADVERTISING

	Yes	No	No Answer
1. I favor unrestricted advertising of Physicians' services	1 (4%)	26 (96%)	
2. I favor advertising of physicians' services restricted to the listing of qualifications in the yellow pages	19 (70%)	8 (30%)	
3. I favor advertisement of fees, services and experience in the lay media	2 (7%)	25 (93%)	
4. Advertising is a good public communication tool in the medical profession.	5 (18%)	21 (78%)	1 (4%)
5. I would advertise my fees and services if it were professionally and legally acceptable.	5 (15%)	22 (81%)	1 (4%)
6. Advertising would increase competition in the medical profession.	9 (33%)	16 (59%)	2 (8%)
7. Advertising would lower fees in the medical profession.	4 (15%)	20 (74%)	3 (11%)
8. Consumers (patients) would be likely to select physicians with the lowest fees if advertising were commonplace.	5 (18%)	20 (74%)	2 (8%)
9. Consumers select a physician without regard to fees	16 (59%)	9 (33%)	2 (8%)
10. Advertising would have an adverse effect on the public image of medicine	19 (70%)	8 (30%)	
11. Advertising would help consumers make more intelligent decisions in selecting a physician.	4 (15%)	23 (85%)	
12. Advertising would promote fraud and hucksterism in the medical profession	19 (70%)	7 (26%)	1 (4%)
13. Advertising would adversely affect the quality of care in medicine.	13 (48%)	11 (41%)	3 (11%)
14. Advertising in medicine is ethically wrong	14 (52%)	12 (44%)	1 (4%)
15. Current physician fees are fair and justifiable	14 (52%)	9 (33%)	4 (15%)
16. Advertising would decrease the cost of medical care	2 (8%)	23 (84%)	2 (8%)
17. It is all right for hospitals to advertise, but not for physicians	5 (18%)	21 (78%)	1 (4%)
18. It is all right for physicians to advertise, but not for hospitals		27 (100%)	

Malpractice litigation also looms as a formidable deterrent to unjustifiable practices.

The extent to which public advertising can be expanded in the field of medicine is very limited. The rapid proliferation of medical sub-specialties and technology has spawned relative ignorance in the consumer. Most sub-specialists prefer to receive referrals from general practitioners and internists, and are relatively unavailable to the population by self-referral. Many recent therapeutic and diagnostic modalities are un-

Letters

known outside of the profession. For example, an endoscopic retrograde cholangio-pancreatogram (ERCP) or transphenoidal hypophysectomy are not procedures known to the public, and could not be advertised at large because of the base of knowledge required prior to considering them. Routine pelvic and breast examinations, urinalysis for diabetes mellitus, stool for occult blood, examination, blood pressure measurement and TB testing are all modalities that could be promoted appropriately to the public on a large scale with standard fee schedules. Indeed, the government has taken the lead in disseminating epidemiological disease screening techniques to the public. Vaccines and immunizations have been offered at little or no charge to the population.

The potential application of advertising outside well-defined and standardized diagnostic and therapeutic modalities is exceedingly limited. Even a routine history and physical examination may be construed as anything from a cursory overview taking approximately 10 minutes or less, to an extensive process involving multiple blood, urine, and x-ray examinations. In order to avoid misrepresentation, the physician advertising any service would have to specify the components and limitations of his "history and physical" in much the same as an auto service center details the components of a "tune-up." Since there is a considerable spectrum of physician opinion and preference of a "routine examination," standardization would be excessively difficult. Furthermore, the patient would be hard-pressed to make a cost/benefit analysis between examinations including such components as rectal and neurological assessments versus those lacking the same.

The FTC versus AMA case has polarized the medical establishment against the federal government in the view of many observers. Certainly, the assertions of the FTC regarding anti-competitive activity and restraint of trade may well be valid. Objections by the AMA and physicians at large are also well founded, and are based on past experience. Both sides have presented cogent arguments supporting their viewpoints.

In the final analysis, even if unrestricted advertising is upheld in the higher courts, the practice of medicine will not change drastically. Physician surveys have revealed that the vast majority of practitioners would not advertise even if it were acceptable legally and professionally. Consumer surveys have shown that the population at large does not view competitive prices as important as the quality of care. Since both consumers and physicians are aware of potential fraud and huck-

sterism, the use of advertising by most physicians will be met by skepticism. The furor about advertising in the medical profession is apparently "much ado about nothing."

Richard A. Wright, M.D.
University of Louisville
School of Medicine
and
Bruce H. Allen, Ph.D.
Associate Professor
College of Commerce
DePaul University

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PROFILE

S. Randolph Scheen, M.D., Secretary-Treasurer

IT is very easy to be a member of an organization. One simply pays the required dues and sits back to enjoy the benefits offered.

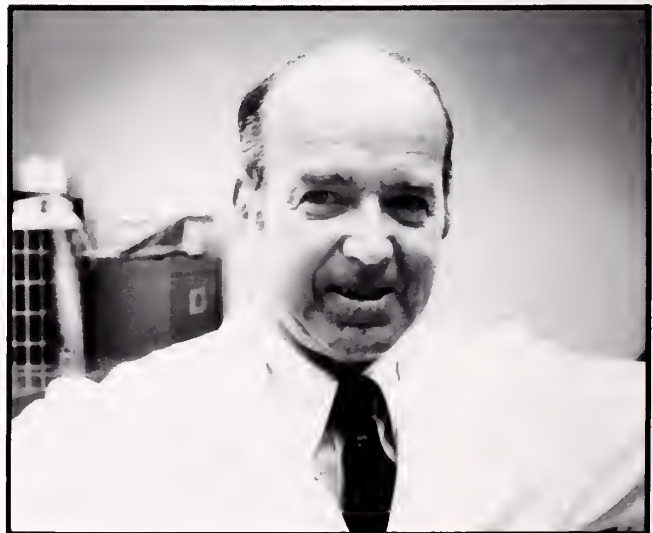
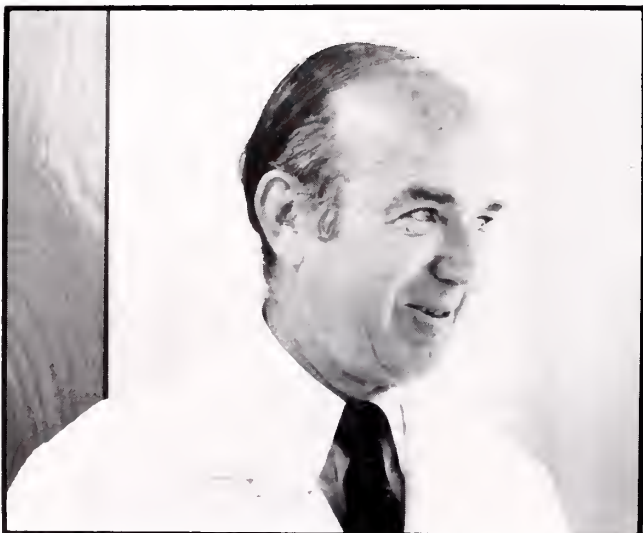
But associations don't survive with members who hold this philosophy. Few associations are fortunate enough, however, to have a member willing to give 14 years of consistent involvement.

Since 1967, S. Randolph Scheen, M.D., Louisville, has been an elected officer of the Kentucky Medical Association. He was elected Secretary in 1967 to fill an unexpired term for Henry B. Asman, M.D., who was elected President-Elect.

Doctor Scheen was reelected as Secretary from 1969 to 1974. The offices of secretary and treasurer were combined in 1975 and Doctor Scheen has held this joint position since. "I enjoy the KMA activities. There isn't much point in belonging and not trying to give some input toward the direction of the organization. We also have one of the finest staffs in the country and they have added both to my interest and the depth of my involvement," explains Doctor Scheen.

One of the things Doctor Scheen says he has contributed most to the KMA is time. The Secretary-Treasurer's main responsibilities are working with staff, keeping an eye on the budget, watching over funds and investments and conferring with and giving advice to various committees. In addition to being Secretary-Treasurer, Doctor Scheen is a member of the Executive Committee, the Quick Action Committee, Budget Committee, Board of Trustees and Judicial Council. He is also the treasurer and on the Board of Directors for the Kentucky Medical Insurance Company as well as being a member of many ad hoc committees. "I think primarily I have contributed a fair amount of time and hopefully a little knowledge toward developing some of these programs and keeping them ongoing," says Doctor Scheen.

Doctor Scheen has been a member of the Judicial Council since he became Secretary. Some of the changes that have occurred in the profession are reflected in the ways the Judicial Council operates. He explains, "The work of the Judicial



Council has gradually lessened. We used to have all-day meetings and now we have half-day meetings. This may be because doctors are doing a better job or the Judicial Council is doing a better job. The guidelines for medical ethics are not quite as rigid and are sometimes more explicit. For example, in the past, advertising guidelines for physicians seemed to be rather vague, but recent actions have defined these guidelines. Most of the changes have been progressive."

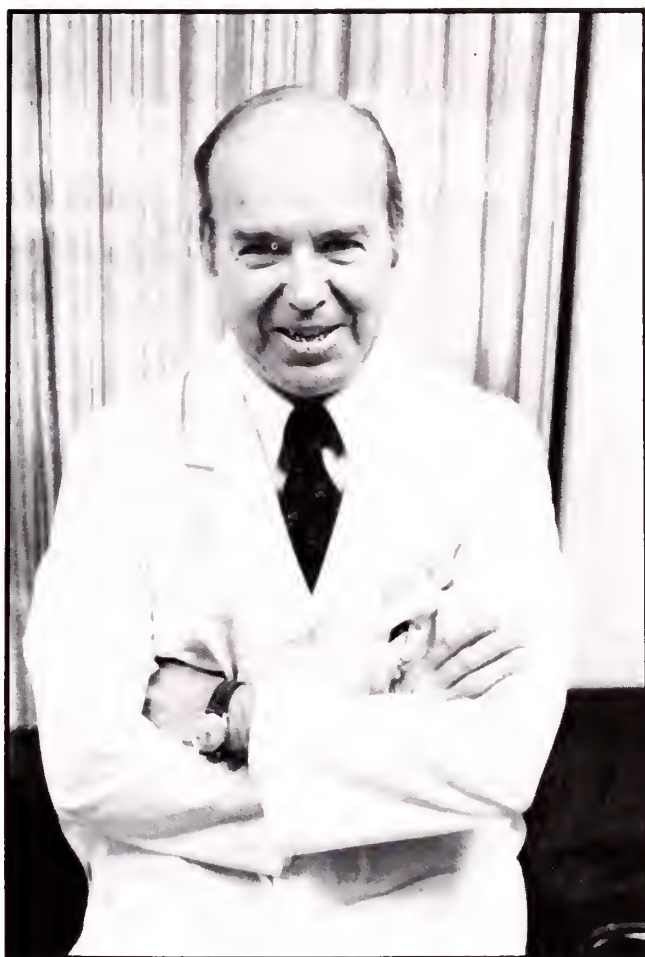
One thing that has not changed, Doctor Scheen is quick to point out, is the amount of KMA annual dues. "We are very fortunate that KMA controls finances so well. We are in the seventh year of a five-year dues plan."

If it is possible to average the amount of time involved in being Secretary-Treasurer, Doctor Scheen estimates about one day a week. This is probably a modest estimation since very often there are weeks when more time is demanded. During the week of the KMA Annual Meeting, Doctor Scheen attends meetings beginning on Saturday and continuing until the following Thursday.

How does he manage to devote so much time to KMA and maintain a busy practice of Dermatology? "Fortunately, for the past five years, I've had a partner who is very generous in allowing me to take off when I need to. Of course my partner is very active with the *KMA Journal* so it works out well for both of us," Doctor Scheen says.

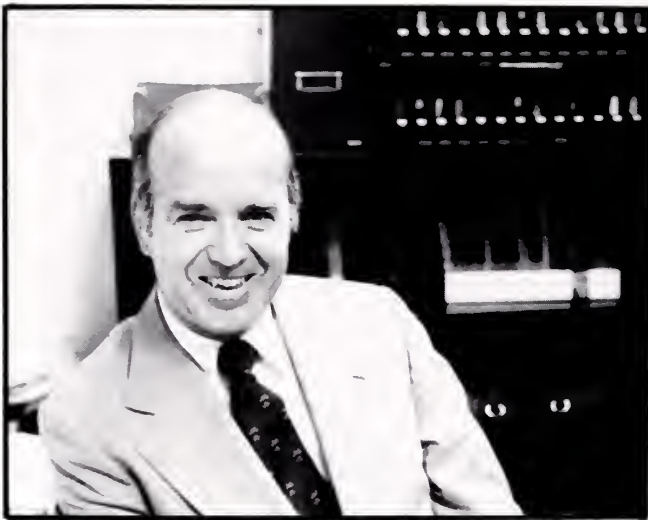
Doctor Scheen has trouble understanding why any practitioner would decide not to join the KMA. Physicians who do not join or who join and don't participate are still getting all of the benefits from the programs, says Doctor Scheen. "All of the activities that KMA is involved in are directed toward improving health care. Those people who don't participate are missing the opportunity for input into things that are going to affect their lives."

Doctor Scheen gives a good example of what can be accomplished when physicians work collectively. "One of the major accomplishments in the last few years is the development of the Kentucky Medical Insurance Company. This allows doctors to receive malpractice insurance without paying exorbitant rates. An awful lot of work went into this endeavor."



If physicians aren't aware of all the activities taking place in the KMA, it certainly isn't a lack of effort from KMA. Doctor Scheen elaborates, "We distribute a large amount of material to educate the membership on all of our activities. There is always information in the *Journal* and "Communicator." There is also a pamphlet developed by past President, Robert S. Howell, M.D., which is very good in explaining KMA. The Annual Meeting also offers an excellent opportunity to speak with a lot of members as well as give them an example of the success of KMA programs. We have the best annual meeting of any state medical association in the country. One example of this is the number of exhibitors who participate. Other states have trouble filling their exhibit hall while we always have a waiting list."

Doctor Scheen often serves as spokesperson for KMA. He appears regularly on the local WHAS "Metz Here" radio program answering questions from people who telephone in to the



station. "When I answer these questions I am speaking for physicians and directing answers toward the consumer. I think that very often there is a large gap between what the public feels physicians are doing and what they are actually doing. One of our major goals should be to try to disseminate as much information as we can to the public. The Corporate Visitation Program was developed to do this. Our physician leaders go to various large employers and talk to them about problems they have in the medical field. It has been a very informative program for us because many employers didn't know that physicians were interested in what was happening in business. I think that one of the things we have not stressed enough to the public is that we really do try to keep down medical care costs. We do this through peer review committees, reviewing fees that seem excessive or through the Judicial Council where a patient may file a complaint against a physician for us to review. We spend a great deal of time investigating any complaint and continuing until everyone is satisfied," says Doctor Scheen.

Doctor Scheen is looking forward to this summer when his oldest son, S. Randolph Scheen, III, will be graduating from the Mayo Clinic as a dermatologist, and will be joining Doctor Scheen in his practice at Baptist East.

Doctor Scheen has four other children. His daughter, Ann, is married to Tom DeMarco, M.D., a urology resident at University Hospital. Their first child, Doctor Scheen's first grandchild, was born in April.

His other daughter, Ellen Corbett, is an accountant at First National Bank. She is married to Patrick Corbett. Kevin, 25, travels as a harness racing track judge and Patrick, his youngest son, is a senior majoring in business at the University of Kentucky.

Both Doctor Scheen and his wife, Betty, are avid golfers. Mrs. Scheen was an elementary school teacher who taught while Doctor Scheen was in medical school. Besides golf, Doctor Scheen enjoys bass fishing and says the biggest bass he's ever caught weighed 6½ pounds. If his daydreams come true though he may have a chance at bigger fish. "The most favorite days in my life have been at Lake Okeechobee in Florida. My long-range plans are to live in Okeechobee someday and get up in the mornings knowing the only decision I have to make is whether or not to go fishing. I will only own two pair of tennis shoes, two pair of old khaki pants and my fishing gear," Doctor Scheen says with a smile.

For the time being, Doctor Scheen enjoys his relationship with the KMA. "I have a great deal of respect for all of the people who put in so much time and effort, particularly physicians who travel long distances to attend the meetings with no reimbursement and at a loss of personal time and income.

They give up their days off and are devoted to working for KMA. The thing that impresses me most is the fact that these people are not only willing to do it, but seem to enjoy it and never refuse anything asked of them for the betterment of KMA."

Text and Photographs by Donna M. Young

Nutrition and Medical Practice

Edited by Lewis A. Barness, M.D., AVI Publishing Company, Inc., 1981, 408 pages

This is an amplification of a Florida State Medical Journal concerned with nutrition. No wonder that the editor deemed this special journal worthy of publication in permanent book form. For those of us educated in the traditional medical school curriculum, the subject of nutrition seems alien to our Flexnerian training. This book is an educational fountain. Pediatricians have been more cognizant of nutritional problems since their patients are profoundly affected by nutritional considerations. Nevertheless, more than adequate segments of the book are involved with adult problems. Adult and pediatric history taking and examination are an excellent introduction. This respect for the initial examination findings is emphasized with various subjects in the book.

The obstetric, diabetic, gastrointestinal impaired and renal insufficient and cancer states are each dealt with adequately. Total parenteral nutrition with technical considerations inherent in its use is presented with sufficient information and references. There are a number of chapters germane mostly to the pediatrician and the family practitioner dealing with children. Not only the common questions about feeding, but also special consideration is given to nutrition in school, in the obese, in diabetic children and other complex conditions.

Controversy is not shunned. There are fair but definitive sections dealing with food additives, hyperactivity, cardiovascular factors and megavitamins and their relationship to nutrition. This material is nice to have when the inevitable questions come into our practice.

Several appendices contain charts and tables, giving readers access to measurement information.

Despite multiple authors and an immense spectrum of subject matter, this book is very informative, easily readable and ready for daily reference.

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Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY. Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are onemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age. Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day† q.i.d.
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day† q.i.d.
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.

†depending on severity



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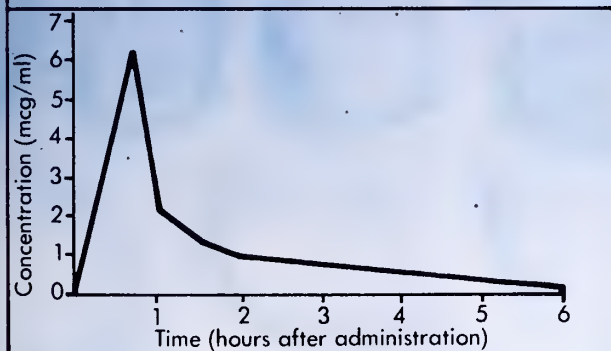
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Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
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*Based on $T^{1/2}$ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

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†Due to susceptible organisms.

See important information on facing page.

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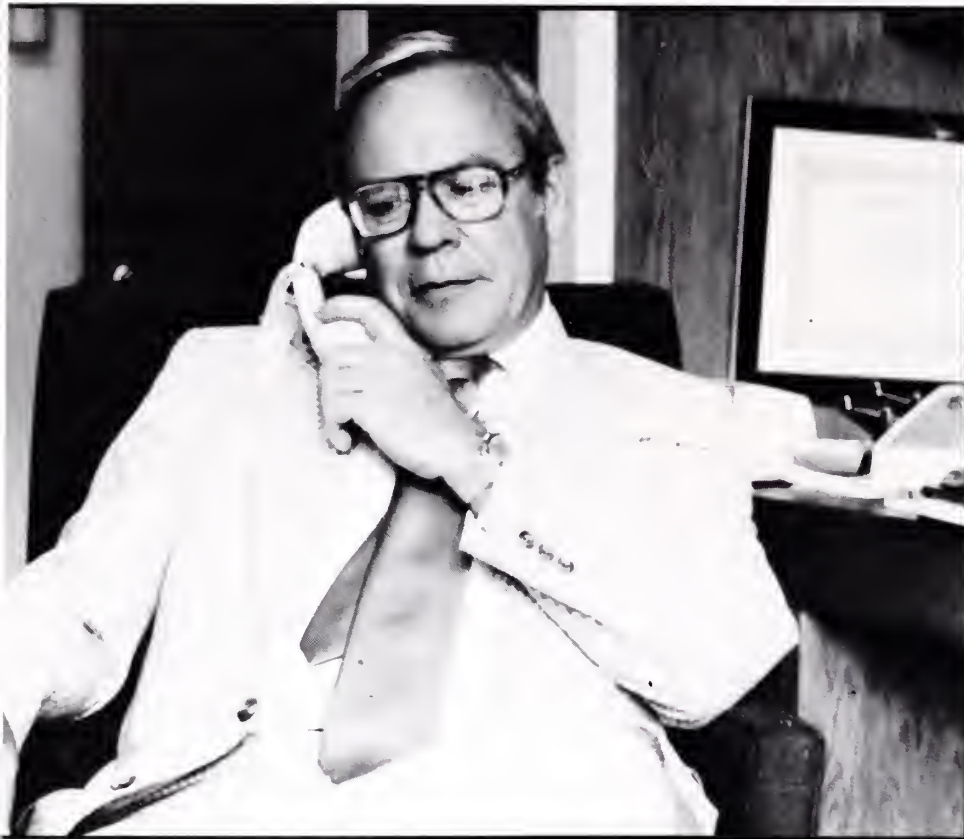
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Robert G. Cox

Executive Vice President: Robert G. Cox, is the Association's Executive Vice President. As chief executive officer he is responsible for the Association's entire operation.

Mr. Cox works directly with Association leadership to assure that policies established by the governing bodies are appropriately executed.

Other duties include the financial operation of the Association, the Headquarter's Office and liaison with allied groups and other organizations at both the state and national level. Mr. Cox also serves as Secretary of the Kentucky Medical Insurance Company, as Secretary of the Rural Kentucky Medical Scholarship Fund, and is the immediate Past President of the Professional Convention Management Association.

Assisting Mr. Cox is Ms. Debby Traugher.



Debby Traugher

This article is published as a guide to the departments of the Kentucky Medical Association. If you should have a specific question about the Association, this will help identify the names and faces of staff members in each department to contact for information.



William T. Applegate



Jean Wayne

Executive Director: The office of the Executive Director is responsible for the coordination and management of KMA's daily operations including personnel recruitment, hiring and evaluation.

As Executive Director, William T. Applegate's other major areas of involvement include health care costs, health care delivery systems and KMA's Corporate Visitation Program.

The Executive Director works with the Scientific Program Committee to plan and implement the Association's Annual Meeting. All arrangements with the Convention Center and hotel management are developed through this office as well as the coordination of meetings for the 20 medical specialty groups that convene during the Annual Meeting. The annual Emergency Medical Care Seminar is also planned and produced through this office. Mr. Applegate serves as staff liaison with the Kentucky Delegation to the American Medical Association.

Ms. Jean Wayne is secretary for the Executive Director.



Robert E. Klinglesmith

Assistant Executive Director: Robert E. Klinglesmith is the Assistant Executive Director. His main responsibilities are in the areas of Ethics, Peer Review, Governmental Medical Programs and State and National Legislation.

As Assistant Executive Director, Mr. Klinglesmith also maintains active communications with related government programs such as the Technical Advisory Committee to Medicaid and the KMA Committee on Medicare, the National Legislative Committee and Key Men on Federal Legislation and Regulations.

If you have questions regarding the KMA Judicial Council, Claims and Utilization Review or any of the district peer review committees, Robert E. Klinglesmith can answer them.

He is also responsible for the yearly KMA Congressional Visit and Dinner.

Mr. Klinglesmith also oversees in-house printing operations which are carried out by Mr. Rick Hahn, and supervises the Receptionist, Pam Nowacki, who is responsible for receiving and directing all incoming telephone calls to the Headquarters Office.

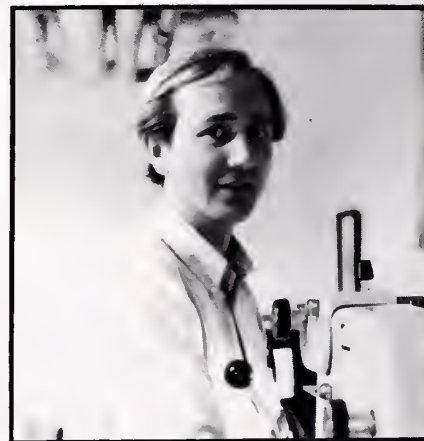
His secretary is Ms. Sharon Heckel.



Sharon Heckel



Pam Nowacki



Rick Hahn

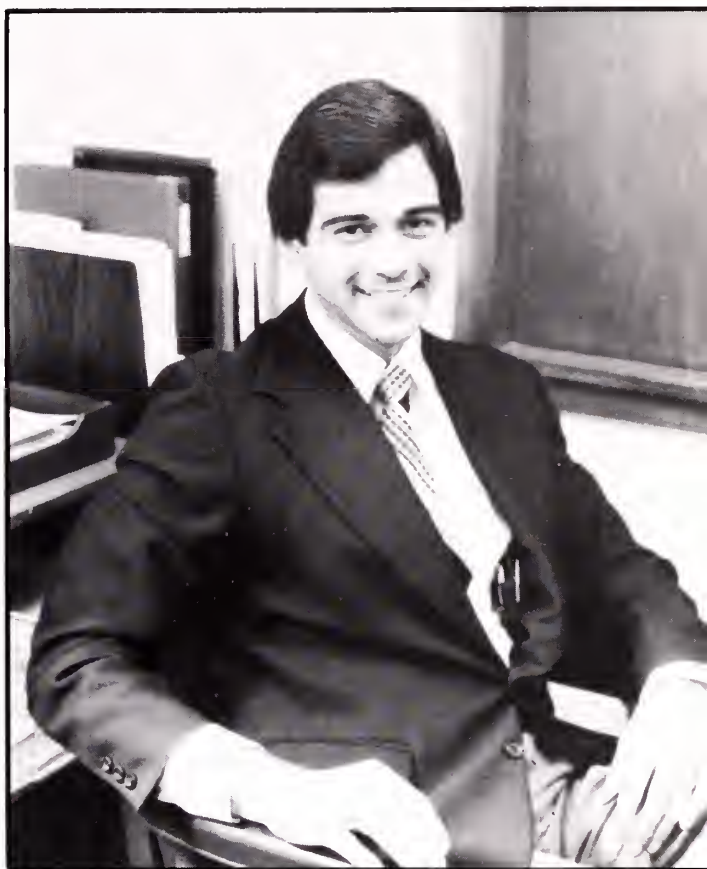
Director of Member Services: The Department of Member Services is charged with the ongoing program of member recruitment and retention.

Joseph A. Witherington, Jr., Director, is responsible for the Association's computer operations which contain information on Placement Opportunities, Continuing Medical Education (CME) and demographic records.

Questions on accreditation of institutions for CME or presentations of programs on School Health, Practice Management, or the Rural Kentucky Medical Scholarship Fund can be addressed to Mr. Witherington.

Ms. Cheryl Notter and Ms. Anna Marie McGinley are the secretaries for this department.

Joseph A. Witherington, Jr.



Anna Marie McGinley



Cheryl Notter



Diane Schmidt



Lucy Callahan



Director, Specialty Services and Public Affairs: Don R. Chasteen supervises this department which handles administrative and secretarial functions for nine specialty societies.

As Director of Public Affairs, Mr. Chasteen serves as liaison with the news media and provides news of public interest regarding activities of the Association. He also staffs the Physicians & Attorney Liaison, Interspecialty Council, Cancer, Community & Rural Health, and Awards Committees.

Mr. Chasteen is the staff person responsible for developing and managing exhibit activities for the Annual Meeting and staffing Trustee District Meetings.

Additionally, Mr. Chasteen works with the Director of Legislative and Governmental Affairs as a registered lobbyist and staff representative during the sessions of the Kentucky General Assembly. He is also liaison with the KMA Auxiliary working with KMA staff member, Ms. Diane Schmidt. Mr. Chasteen is assisted by Ms. Lucy Callahan.

Don R. Chasteen



William E. Doll

Director, Legislative and Governmental Affairs: Kentucky Certificate of Need Board, HSA East and West Committees and the State Health Coordinating Council are all in the purview of William E. Doll, the newest member of the KMA executive staff.

An attorney, Mr. Doll also functions as legal advisor within KMA staff and as a lobbyist for KMA during the General Assembly. He monitors the General Assembly Interim Committee System and within the KMA committee structure staffs the State Legislative Committee, Hospital Committee, Maternal and Child Health and Constitution and Bylaws Committees.

Working with Mr. Doll through the Frankfort KMA Office is Ms. Judy Hagler who is responsible for administrative and clerical duties in KMA's Frankfort Office.

Assisting Mr. Doll in the department is Ms. Doris Crume.



Doris Crume



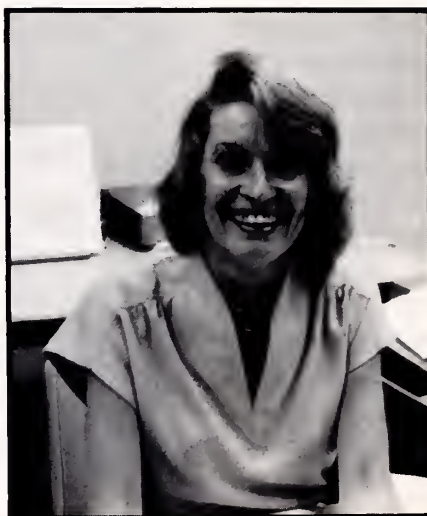
Assistant Secretary to the Kentucky State Board of Medical Licensure: C. William Schmidt is responsible for handling the administrative operations of the Board which include the licensing and policing of medical and osteopathic physicians in the state.

In addition, Mr. Schmidt is responsible for the administration of the State Paramedic Program and the Certification of Qualified Athletic Trainers. Assisting Mr. Schmidt are Ms. Karen Treadway, Ms. Shannon Smith, and Ms. Terese McIntosh.

C. William Schmidt



Karen Treadway



Shannon Smith



Terese McIntosh

Director of Financial Operations: Questions regarding statistical data on members of the KMA can be directed to Ms. Lillie R. Byrd. As Director of Financial Operations, Ms. Byrd is responsible for maintaining computer files on Association dues at the county, state and national levels. Requests for computer data, including *Journal* subscriptions, mailing labels, county rosters, and statistics on all Kentucky physicians can be handled through this office. Secretaries for the department are Ms. Meg Brenner, Ms. Susan Anderson and Ms. Margie Hall.

Lillie R. Byrd



Meg Brenner



Susan Anderson



Margie Hall



Managing Editor for the *KMA Journal*: As Managing Editor, Ms. Donna Young is responsible for publication of the *Journal of KMA* and the "Communicator" newsletter.

All scientific and special articles appearing in the *Journal* are sent to this office. Working with the Associate Executive Editor, Joseph A. Witherington, Jr., Ms. Young edits articles published in the *Journal*, coordinates advertising rates and information and maintains a current list of state and national medical meetings.

Assisting the department is Ms. Diane Schmidt.

Donna M. Young



KEMPAC—Ms. Fay Miles coordinates the activities of the Kentucky Educational Medical Political Action Committee "KEMPAC." She serves as executive staff to the KEMPAC Board and performs all of the necessary administrative and clerical operations required of PAC's which includes state and federal candidate support reporting requirements.

Fay Miles

Members in the News

NEW MEMBERS

BARREN

Narasimha Reddy, M.D., Glasgow

BOONE

John K. Schuler, M.D., Florence

BOYD

Gary L. Baker, M.D., Ashland
Jack F. Ditty, Jr., M.D., Ashland

CAMPBELL

John C. Holmes, M.D., Cincinnati
Lawrence J. Zimmer, M.D., Bellevue

CLAY

Martha L. Seeley, M.D., Manchester

CHRISTIAN

Clarence E. Zynder, M.D., Hopkinsville
George W. Thomas, M.D., Hopkinsville

DAVISS

Edward P. Feutz, M.D., Owensboro

EDMONSON

Omkar N. Bhatt, M.D., Brownsville

FAYETTE

M. Douglas Cunningham, M.D., Lexington
Robert C. Flanigan, M.D., Lexington
Bruce A. Julian, M.D., Lexington
Bruce H. Koffler, M.D., Lexington
Edward N. Maxwell, Jr., M.D., Lexington
Edward H. Oldfield, M.D., Lexington
John S. Thompson, M.D., Lexington

FRANKLIN

Jerald S. Dudley, M.D., Frankfort

HARDIN

George W. Bauer, M.D., Elizabethtown
George A. Fredrick, M.D., Elizabethtown
Samuel P. Pike, M.D., Elizabethtown

HARLAN

Asif Ayub, M.D., Harlan

HOPKINS

William H. Clapp, M.D., Madisonville
Henry C. Dorminey, M.D., Madisonville
Danny Hatfield, M.D., Madisonville

Stephanie R. Hatfield, M.D., Madisonville
Thomas L. Herrmann, M.D., Madisonville
James L. Johnson, M.D., Madisonville
A. M. Kulam, M.D., Madisonville
Frank B. Miller, M.D., Madisonville
Allan E. Nickel, M.D., Madisonville
Susan P. Nickel, M.D., Madisonville
David G. Pursley, M.D., Madisonville
David W. Rindfusz, M.D., Madisonville
Dennis G. Shoff, M.D., Madisonville
James R. Smith, M.D., Madisonville
Frank H. Taylor, M.D., Madisonville
Diane L. Thiel, M.D., Madisonville
Philip S. Trover, M.D., Madisonville
Mack Tyner, M.D., Madisonville
W. R. Watson, M.D., Madisonville
Mel S. Viji, M.D., Madisonville

JEFFERSON

Esperanza Alvarado, M.D., Louisville
Linda P. Peeno, M.D., Louisville

KENTON

Alson L. Greiner, M.D., Ft. Mitchell

LAWRENCE

Venkateswara R. Sola, M.D., Louisa

McCRACKEN

Joseph A. Bassi, M.D., Paducah
William M. Bruce, M.D., Paducah
Laxmaiah Manchikanti, M.D., Paducah
Luke D. Ross, M.D., Paducah

MONTGOMERY

Janet White, M.D., Mt. Sterling

PERRY

Walter Cowan, M.D., Hazard
P. G. M. Shetty, M.D., Hazard

PIKE

George F. Buckley, M.D., Pikeville
Maria Angeles Espanol, M.D., Williamson
Indira Malempati, M.D., Pikeville
Ahmed Malik, M.D., Pikeville
Manosh Vonguises, M.D., Pikeville

WHITLEY

Roderick Weisert, M.D., Corbin

WOODFORD

David T. Allen, M.D., Frankfort

**IN MEMORIAM
ABRAHAM WIKLER
1910-1981
Lexington**

Abraham Wikler, M.D. died March 7. Doctor Wikler was a 1935 graduate of the Long Island College of Medicine. He was an Emeritus Professor of Psychiatry and Pharmacology and had been a member of KMA since 1944.

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LEXINGTON OFFICE: Charles E. Foree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524

Guide to KMA Services

Accounting	Lillie R. Byrd
Advisory Council on Athletic Trainers	C. William Schmidt
Advisory Committee to DHR	Robert E. Klinglesmith
AMA Delegates	William T. Applegate
Annual Meeting—Scientific Program (except House of Delegates)	William T. Applegate
Annual Meeting—Specialty Groups, Rooms and Arrangements, Awards, & Exhibits	Donald R. Chasteen
Auxiliary	Donald R. Chasteen
Billing	Lillie R. Byrd
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Business Management and Services	William E. Doll
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Certificate of Need	William E. Doll
Claims & Utilization Review	Robert E. Klinglesmith
“Communicator”	Donna M. Young
Community and Rural Health	Donald R. Chasteen
Complaints	Donald R. Chasteen
Computer Operations	Joseph A. Witherington, Jr.
Constitution & Bylaws	William E. Doll
Continuing Medical Education (CME)	Joseph A. Witherington, Jr.
Corporate Visitation Program	William T. Applegate
Emergency Medical Care & Seminar	William T. Applegate
Executive Committee	Robert G. Cox
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Medicare	
Health Care Costs & Voluntary Effort	William T. Applegate
Hospital Committee	William E. Doll
House of Delegates	Robert E. Klinglesmith
HSA Committees	William E. Doll
Insurance	Robert G. Cox
Interspecialty Council	Donald R. Chasteen
<i>Journal</i>	Donna M. Young
Judicial Council	Robert E. Klinglesmith
KEMPAC	Fay Miles
	Robert E. Klinglesmith

KMA-KNA Joint Practice

Donald R. Chasteen

Legislation, Interim Committees &
Lobbying

Donald R. Chasteen
Robert E. Klinglesmith
William E. Doll

Maternal & Child Health
Maternal Mortality
McDowell House
Media Relations
Medical Insurance and Prepayment Plans (HMOs)
Medical Records
Membership Recruitment & Retention

William E. Doll
Joseph A. Witherington, Jr.
William E. Doll
Donald R. Chasteen
William T. Applegate
Lillie R. Byrd
Joseph A. Witherington, Jr.

National Legislation
Nominating Committee
Nurse Practice Council

Robert E. Klinglesmith
Robert G. Cox
C. William Schmidt

Office Manager

William T. Applegate

Paramedic Advisory Committee
Personnel
Physician Attorney Liaison
Physicians' Health
Placement Services & Recruitment Fair
Printing

C. William Schmidt
William T. Applegate
Donald R. Chasteen
Robert E. Klinglesmith
Joseph A. Witherington, Jr.
Robert E. Klinglesmith
Rick Hahn

Quick Action Committee

Robert G. Cox

Reference Committees
Rules
Rural Kentucky Medical Scholarship Fund

Robert G. Cox
Robert E. Klinglesmith
Joseph A. Witherington, Jr.

School Health, Physical Education & Medical
Aspects of Sports
Selective Service Advisory
Speakers Bureau
State Board of Medical Licensure
State Health Coordinating Council
State Legislation

Joseph A. Witherington, Jr.
Joseph A. Witherington, Jr.
Donald R. Chasteen
C. William Schmidt
William E. Doll
William E. Doll

Technical Advisory on Physicians' Services
Trustee District Meetings


Robert E. Klinglesmith
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Kentucky Medical Association
3532 Ephraim McDowell Drive
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**Acute pain
is no laughing matter.**

The first prescription for the first days of acute pain Empirin® \bar{c} Codeine #3


Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). 

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin \bar{c} Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin \bar{c} Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with... two tablets of Empirin \bar{c} Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg (Warning — may be habit-forming) 

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSEAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants.
See WARNINGS.



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Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

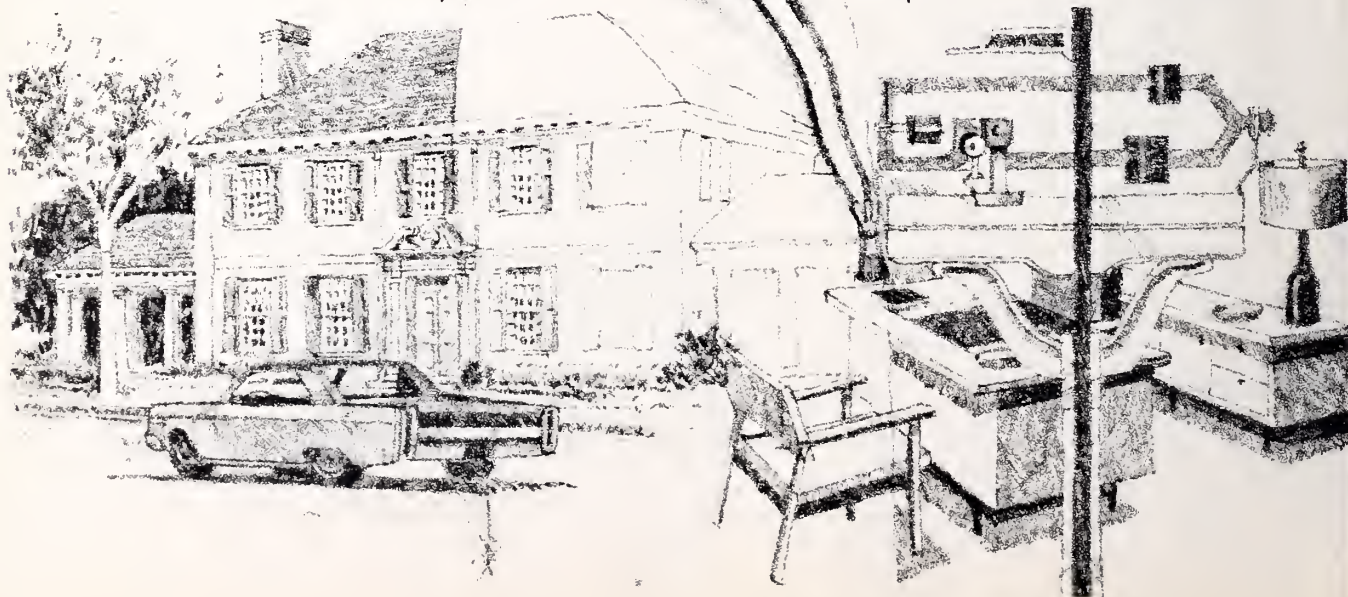
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

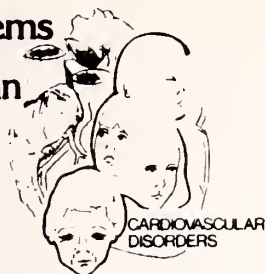
Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

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**Problems
in the
Human
Life
Cycle**



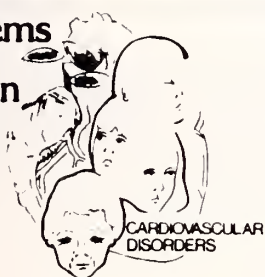
“Adolescence to Adulthood” is Wednesday Morning’s Theme at KMA Annual Meeting

Leonard R. Rubin, M.D., Director of the Plastic and Maxillofacial Surgery and the Burn Center for the Nassau County Medical Center in East Meadow, NY, will be one of the featured guest speakers Wednesday, Sept. 23.

Doctor Rubin will discuss “Reanimation of the Paralyzed Face by Contiguous Muscle Transposition.” His presentation will include 35mm. slides of the technique, 16mm. motion pictures of surgery and pre and post-operative photos of patients.

All Scientific Sessions will be held at the Ramada Inn/Bluegrass Convention Center, Louisville. You are urged to make your reservations as soon as possible.

**Problems
in the
Human
Life
Cycle**



Cardiovascular Care Units is Doctor Turner’s topic at KMA Annual Meeting

Wednesday afternoon, Sept. 23, Glenn O. Turner, M.D., will speak on “Cardiovascular Care Unit Design and Operation in small, medium and large hospitals.”

Doctor Turner’s topic will be dealt with as a “systems approach” to coronary, cardiovascular and special care units to validate the cost-quality-effectiveness of admission-to-discharge special care systems for hospitals of all sizes.

Scientific Sessions of the Annual Meeting are scheduled Sept. 22, 23 and 24 at the Ramada Inn/Bluegrass Convention Center, Louisville.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

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MEDICAL OPPORTUNITIES

EMERGENCY MEDICINE: Clinical positions available in lovely Bluegrass Region just 25 miles south of Lexington. Physicians chosen will enjoy an excellent income, flexible scheduling, paid liability insurance and total specialty support in a moderate volume emergency department. For further details call Michelle Grimm toll-free, 1-800-325-3982; or send credentials in confidence to 970 Executive Parkway, St. Louis, MO 63141.

ST. MATTHEWS residence with Doctor's 2,700 sq. ft. office, since 1959. Parking, four exam rooms, x-ray, office, reception area. Ready for physician's practice. Low cost. Hope Wiedeman, Paul Semonin Company 426-1682 or (home) 895-2595.

RETIRED PEDIATRICIAN. Let's presume that you are still interested in your field but have given up active practice. We are much in need of your wisdom and experience as advisor and counselor to our youth health magazines (8 of them) which feature health and life improvement at each level of elementary school. Do get in touch. Contact Cory SerVaas, M.D. 317-636-8881.

KENTUCKY TOWN NEEDS G.P. We own a hospital in Eastern Kentucky, that has complete services and Specialists. An adjacent town needs a G.P. This friendly community with a drawing area of 15,000, will provide a complete financial package to insure a successful practice. Let us provide you and your family with complete details. All replies kept confidential. Contact Mr. William Anderson, Hospital Management Associates, 2180 W. First Street, Fort Myers, Florida 33901.

DOCTOR NEEDED in Providence, KY. Population 6,000. 12,000 drawing area. A growing coal mining community in western KY. Near new Syn-fuel plants. Office space readily available with some equipment (x-ray) included. First six months to one year lease payments deferred or reduced. Located 15 miles from modern 400 bed hospital. Good third party insurance. Contact Tom Glover, Providence Medical Center, Providence, KY 42450 or call collect, day (502) 667-2049, night (502) 664-6017.

FOR SALE

500 ACRE CATTLE & TIMBER FARM. Ideal tax shelter and hide-away for the young business or professional man. Thousands of young walnut trees in T. S. I. program. Dependable tenant available. 30 miles northeast of Lexington. For sale by owner, \$790.00 per acre, terms. Call 812-372-1561 for appointment. Evenings call 812-342-4162.

FOR RENT

VACATION IN VERO BEACH, one hour from Disney World, Palm Beach or Cape Kennedy. New Luxurious Condominium. Screened balcony overlooks beach and pool. Two bedroom, two bath, elegance, sleeps six people. Weekly, monthly, annual rentals. Contact J. Hiller, M.D. (606) 266-8208.

HEADQUARTERS ACTIVITY

JULY

- 9 CME Committee
- 14 *Journal* Editors, Louisville
- 15 School Health, Physical Education and Medical Aspects of Sports Committee, Louisville
- 16 Medical Insurance and Prepayment Plans Committee, Louisville
- 16 Physicians Health Committee, Louisville
- 22 Basics in Sports Medicine, Gilbertsville, KY
- 23 Board of Medical Licensure, Louisville

AUGUST

- 5-6 KMA Board of Trustees, Louisville
- 11 *Journal* Editors, Louisville

SEPTEMBER

- 8 *Journal* Editors, Louisville
- 22-24 KMA Annual Meeting, Louisville

August 1981
Volume 79
Number 8

The
Journal
Of The
Kentucky
Medical
Association

Problems in the Human Life Cycle



CARDIOVASCULAR
DISORDERS

DEPT. OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

AUG 19 1981

WDS

KMA Annual Meeting, September 22, 23, 24, 1981

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)® , please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Use in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect.

Adults: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Postgraduate Opportunities

AUGUST

- 10-11 Antibiotic Review-1981, Sheraton Washington Hotel, Washington, D.C.
- 21-22 5th Annual Bethesda Hospital Extra-Capsular Cataract & Implant Seminar, The Westin Hotel, Fountain Square, Cincinnati, OH

SEPTEMBER

- 12 Using Laser in Glaucoma, Vernon Manor Hotel, Cincinnati, OH
- 18-20 Human Sexuality, Brown County Inn, Nashville, IN
- 22-24 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville, KY
- 25-27 Second National Seminar on Community Cancer Care, Hyatt Regency, Indianapolis, IN
- 29-3 5th District Meeting of the American College of Obstetricians and Gynecologists, Hyatt Regency, Lexington

OCTOBER

- 2-4 Midwest Forum on Allergy, Stouffer's Inn, Cleveland, Ohio
- 17 3rd Annual Physicians Recruitment Fair, Ramada Inn/Bluegrass Convention Center, Louisville
- 17 Kentucky Regional Meeting American College of Physicians and Kentucky Society of Internal Medicine, Hyatt Regency, Lexington

DECEMBER

- 10-11 Current Topics in Geriatric Medicine, Duke University, Durham, NC
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The Department of Pediatrics, University of Louisville School of Medicine announces that the 1981 John I. Perlstein Lecturer will be Doris P. Howell, M.D., Professor of Pediatrics and Community Medicine at University of California, La Jolla, California. The lecture will be held at noon, Monday, September 14, 1981, in the Health Sciences Center Auditorium, Abraham Flexner Way.

For further information write: Billy F. Andrews, M.D., Professor and Chairman, Department of Pediatrics, University of Louisville, School of Medicine, Health Sciences Center, Louisville, Kentucky 40292.

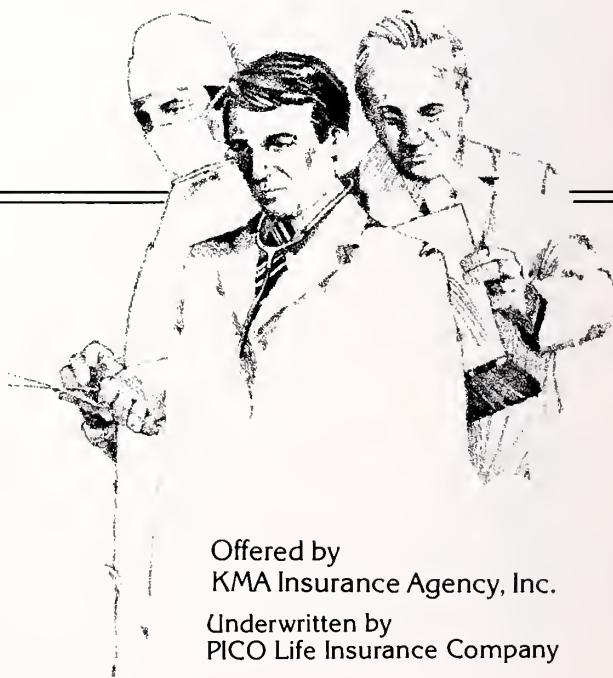
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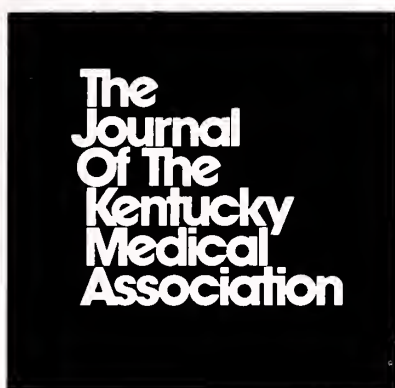


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EQUAGESIC—Abbreviated Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Possibly effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache. Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood and in near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery. Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants e.g. caffeine, metrazol or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute normothrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine citrate combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients.

Management of Overdosage: DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and to emesis. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **WITHDRAWAL SYMPTOMS IN THE NEONATE:** HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol. **ADVERSE REACTIONS:** The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients. Some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as local or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity (jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardopathy have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone, nalorphine, and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures. Analgesic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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PRESIDENT'S PAGE

“WHY should I join the AMA?” “What has the KMA done for me?” “Why should I continue my membership?” “They (AMA, KMA) haven’t done anything for me lately.” “Join KEMPAC and AMPAC—you must be kidding. What have they accomplished for me?” How often have we heard these questions and statements from our fellow physicians?

Most physicians understand the necessity of a strong, active association working in their interest to maintain a free and independent practice of medicine. An ever increasing number of physicians, however, question a continued membership and participation in organized medicine. Money is tight. Time is at a premium. Frustration and concern brought about by the social, political and economic conditions of our time result in all of us questioning our affiliations and allegiances.

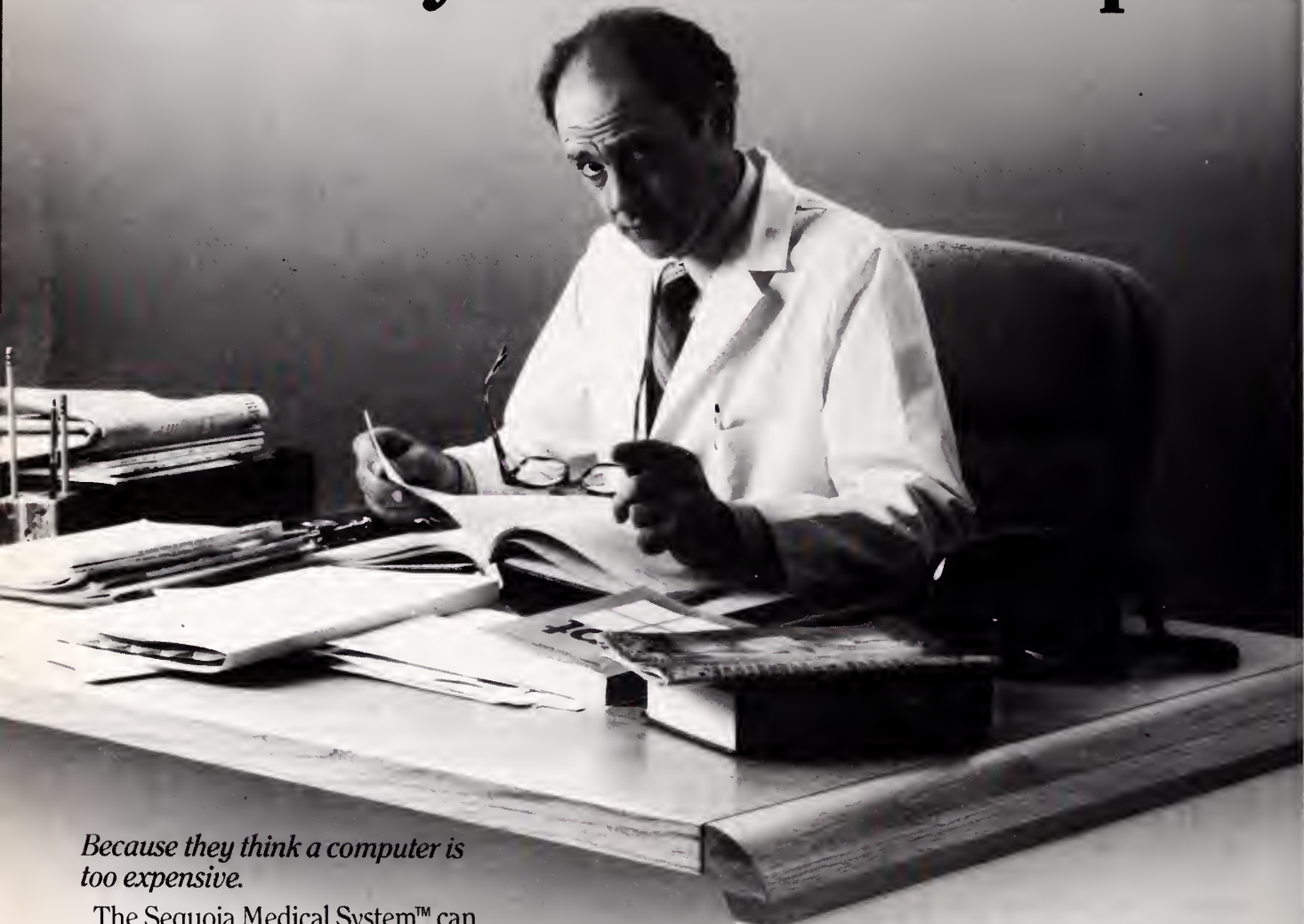
Those of us actively engaged in the day-to-day roles of organized medicine clearly understand the importance and know of the Association’s accomplishments. We understand the Association’s role in representing its members at all levels. The success of the Association in the political, economic, bureaucratic and social wars of the 1960’s and 1970’s are well known by the medical leadership. But there is an apparent information gap and many of the members are not aware of these factors and thus question their continued involvement and membership.

As an association, if we are to maintain our strength, we must renew efforts to have each and every physician understand our goals and accomplishments. Each physician must be made aware of the Association’s goals, priorities, strategy, programs, failures, successes and all phases of its representation on their behalf.

Medical associations are a powerful force—no one can measure how powerful they are—in keeping medicine strong, productive, prosperous and free. But the association cannot live up to its potential unless it has the full cooperation and support of all its members and potential members. To make our Association superior, effective in its work—providing its members with what they need to be successful in their profession, we must rededicate ourselves to our goals and ideals through an informed, active membership. Each physician within the Commonwealth must understand his importance to the association and become an active participating advocate for medicine.

Frank R. Pitzer, M.D.
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Constrictive Pericarditis Following Heart Surgery

Gurbachan S. Sohi, M.D., Nancy C. Flowers, M.D.,
Will W. Ward, M.D. and Laman Gray, Jr., M.D.

A patient who developed constrictive pericarditis after mitral valve surgery is reported. This complication of cardiac surgery is being recognized more frequently, and though uncommon should be considered as one of the causes of poor results from heart surgery.

Introduction

ALTHOUGH cardiac surgery is a common procedure,¹ hemodynamically significant post-pericardiotomy constrictive pericarditis is a rare complication, and only a few cases of this newly recognized entity have been reported.²⁻⁸ However, as demonstrated by this case, this postoperative complication can be a cause of poor surgical results and may prove fatal.

Case Report

A 57-year-old white male received a Bjork-Shiley mitral prosthesis on May 28, 1975, for severe mitral stenosis. Coronary arteriography performed at that time was normal. He did well until

December 1979 when he started having shortness of breath. He was admitted to his local hospital, later, in severe congestive heart failure (CHF) and then transferred to our care. Clinical, laboratory, echocardiographic and cardiac catheterization data indicated severe obstruction of the mitral prosthesis (TABLE I). In addition, peripheral pulses below the femoral arteries were absent due to previously known peripheral vascular disease. At surgery a thrombosed and severely obstructed prosthetic valve was replaced by a Hancock porcine valve. The pericardium was left open. The post-operative recovery was slow, but when the patient was discharged on the 16th hospital day he was free of CHF. He returned on the 36th post-operative day complaining of weight gain, anorexia, nausea, fullness in the abdomen and shortness of breath. On physical examination

CONSTRICTIVE PERICARDITIS—Sohi et al

the patient was found to be an ill looking individual with a blood pressure of 110/70 mmHg, without pulsus paradoxus, pulse 90 per minute and irregularly irregular, jugular venous distention up to the angle of the jaw in sitting position, moderate amount of pedal edema, absent pulses below the femoral arteries, bilateral crepitations at the lung bases, variable first heart sound and slightly prominent pulmonic component of the second sound, and enlarged liver with mild ascites. An electrocardiogram showed atrial fibrillation and nonspecific ST-T wave abnormalities. A chest x-ray showed a normal sized heart with increased pulmonary markings from pulmonary fibrosis, and bilateral pleural scarring with normal pulmonary vascular pattern. Possible causes for this deterioration in his clinical state and right heart failure out of proportion to left heart failure considered were (1) chronic pulmonary embolization, (2) right ventricular infarction, (3) progressive pulmonary hypertension from mitral stenosis, or from severe left ventricular failure, (4) tricuspid stenosis which might have been missed previously, and (5) constrictive pericarditis. Further laboratory studies included a gated blood pool heart scan which showed the size of the left ventricle to be slightly enlarged with slight overall hypokinesia. A two dimensional echocardiogram showed the prosthetic valve to be normal. Cardiac catheterization (Table I and Figure 1) showed equalization of diastolic pressures with a square root sign,⁹ without gradient across any valves, and a normal sized and slightly hypokinetic left ventricle (ejection fraction 50%),¹⁰ and no mitral regurgitation.

After vigorous attempts at medical therapy failed to get him out of CHF and his renal function continued to deteriorate, a pericardiectomy was performed on April 5, 1980 and a thick almost cartilaginous pericardium was removed. Microscopic examination of the removed specimen showed dense fibrous tissue with focal calcification. No granuloma or active inflammation were seen. Initially, pericardiectomy resulted in substantial clinical improvement indicated by increased appetite, decreased liver size, clinical and chest x-ray evidence of considerable lessen-

TABLE 1

INTRACARDIAC PRESSURES AT CARDIAC CATHETERIZATION

SITE	PRESSURES mm/Hg	
	April 4, 1980	May 31, 1980
RA	(8)	(23)
RV	110/10	47/22
PA	115/55 (75)	46/28 (40)
PCW	(40)	(24)
LV	105/8	98/22
AO	98/65 (70)	100/77 (90)
CI (L/m ²)		1.3
EF		0.50

Mean pressures within parenthesis. RA = Right atrium, RV = Right Ventricle, PA = Pulmonary artery, PCW = Pulmonary capillary wedge, LV = Left ventricle, AO = Aorta, CI = Cardiac Index, and EF = Ejection fraction.

ing of CHF, improved renal function and a significant decrease in pulmonary capillary and pulmonary artery pressures measured through the Swan-Ganz catheter. A mild amount of purulent discharge from the lower part the chest incision started on the third post-operative day. Later, the sternum had to be resutured because of dehiscence. A right above knee amputation was performed because of gangrene of the right foot produced by previously mentioned peripheral vascular disease.

However, two weeks later the patient's clinical state deteriorated. Neck vein engorgement worsened and the hepatic size increased. The rales in the lungs and congestive changes on chest x-ray became worse. The patients mentation deteriorated and the renal function continued to worsen. The patient died on May 5, 1980. Permission for autopsy was not granted.

Discussion

The existence of clinically overt post-pericardiectomy constrictive pericarditis, previously considered rare or nonexistent, has been recently brought to light by several reported cases.²⁻⁸ It has been pointed out that in addition to myocardial dysfunction due to intraoperative myocardial infarction, right ventricular infarction,^{11,12} pulmonary embolization, tricuspid stenosis with or without associated regurgitation, constrictive pericarditis should be considered as a possible cause of poor post-operative results of cardiac surgery. Previously unsuspected myocardial re-

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TABLE II

REPORTED CASES OF POSTOPERATIVE CONSTRICTIVE PERICARDITIS

CASE NO.	TYPE OF SURGERY	INTERVAL	PERICARDIECTOMY	REFERENCE NUMBER
1	ACBG	3 weeks	yes	2
2	ACBG	1 month	yes	2
3	MVR, AVR	8 weeks	yes (died)	3
4	ACBG	5 months	yes	4
5	MVR	2 weeks	yes	5
6	MVR	3 years	yes	5
7	ASD Repair	1 year	yes	5
8	ACBG	5 weeks	yes	6
9	ACBG	5 weeks	no	6
10	ACBG	4 weeks	no	6
11	MVR	Between 6-23 weeks	yes	7
12-17	ACBG	Average 12 weeks	yes	7
18	ACBG	9 months	yes	8
19	MVR	5 weeks	yes (died)	Present Case

MVR - Mitral Valve Replacement, AVR - Aortic Valve Replacement
ASD - Atrial Septal Defect, ACBG - Aorto Coronary Bypass Grafting.

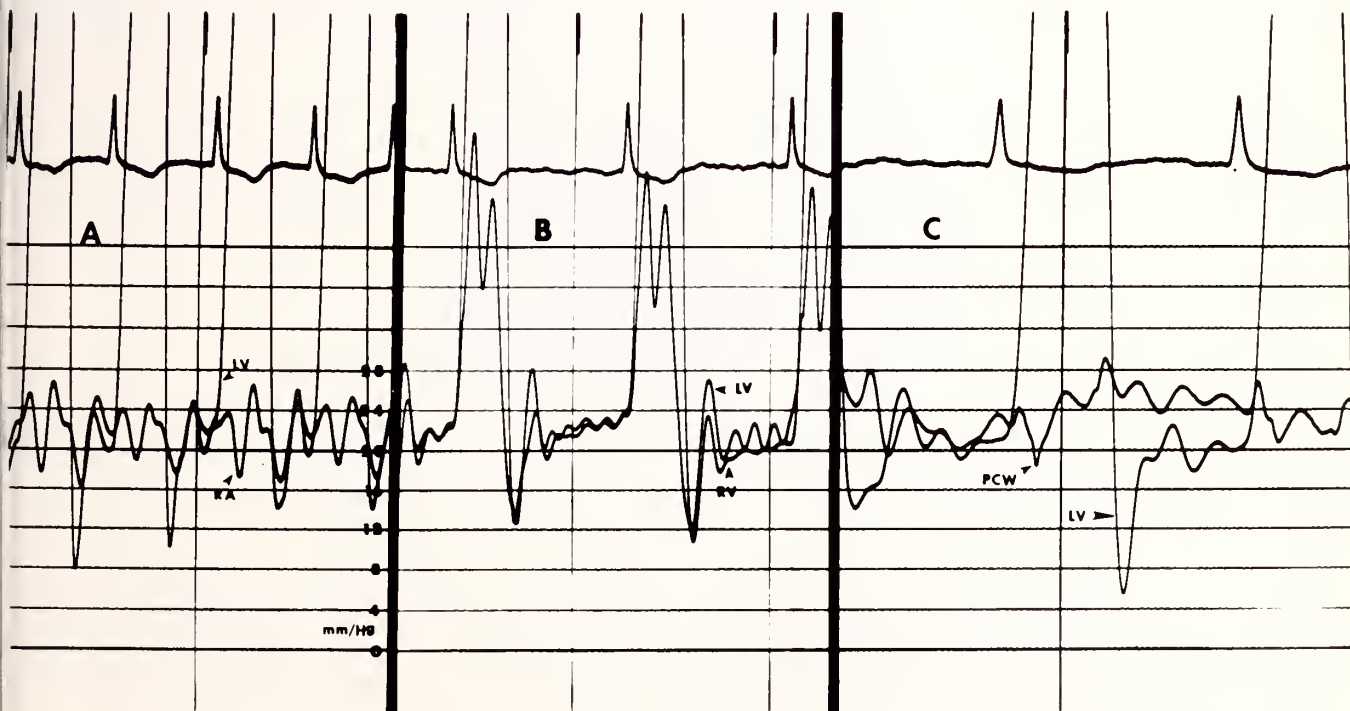


Fig. 1: Hemodynamic data from cardiac catheterization showing equalization of diastolic pressures and a square root sign. A - LV (Left ventricle) and RA (Right atrium), B - LV and RV (Right ventricle), and C - LV and PCW (Pulmonary capillary wedge pressure).

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strictive disease may also produce a similar clinical picture.^{13,14}

Constrictive pericarditis has occurred both after myocardial revascularization and valve replacement. Though it can take a few years to manifest, yet most of the reported cases became clinically evident within a few weeks to a few months (TABLE II). Because of the general feeling of its rarity, or nonexistence, diagnosis was delayed in some cases.

The definite mechanism leading to post-pericardiotomy constrictive pericarditis is still unknown. The first reported case of this surgical complication occurred after a Beck I procedure, where fibrosis was possibly caused by asbestos and talc.¹⁵ Povidone-iodine (Betadine) has been incriminated in one report.⁶ Post-pericardiotomy syndrome, which has been considered to be one of the causes of constrictive pericarditis preceded it in a few cases.^{6,16} None of the other known causes of constrictive pericarditis were present in the reported cases.^{16,17}

Constrictive pericarditis also has been produced by blunt chest trauma (organized hemopericardium by implication).¹⁸ Cardiac tamponade has been noted to occur less often if the pericardium is closed at surgery; presumably closing the pericardium prevents entry of blood from the mediastinal bleeding.¹⁹ Pertinent to this fact, in our patient and in most of the reported cases, the pericardium was left open. However, additional factors that lead to pericardial fibrosis after surgical injury, and bleeding in some patients, are yet unknown. Though the exact incidence is unknown yet this complication appears to be rare. In one series constrictive pericarditis occurred in 2.5 per thousand pericardiectomies.⁷

In most cases the pericarditis was severe enough to require pericardiectomy for hemodynamic relief. In our case pericardiectomy was satisfactory as indicated by significant initial clinical improvement. However, the fibrosis seems to have recurred leading to clinical deterioration and death, although we can not be certain without an autopsy.

This case demonstrates that this newly recognized entity should be appreciated and should

be considered as one of the causes of poor surgical results.

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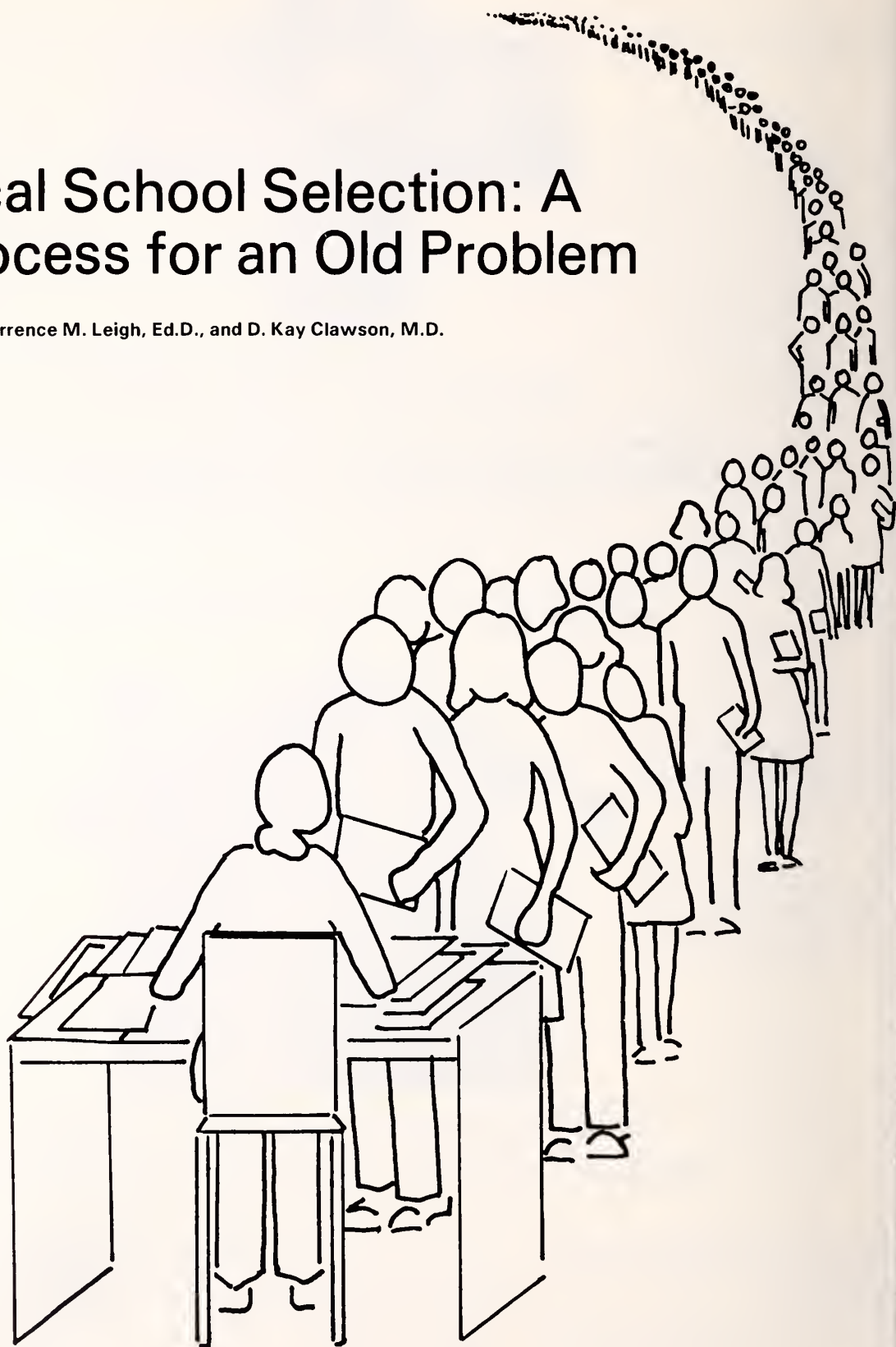
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Medical School Selection: A New Process for an Old Problem

Terrence M. Leigh, Ed.D., and D. Kay Clawson, M.D.



The College of Medicine of the University of Kentucky has recently revised its procedures to evaluate candidates for admission in response to action of the 1978 and 1980 General Assemblies. The new system distinguishes the academic and non-academic components of a candidate's application utilizing a 60-40 percentage split between academics and non-academics respectively. The academic component includes science grade average, cumulative grade average, and Medical College Admission Test scores. The non-academic component includes categories of: humanitarian or service activities; premedical recommendations; applied interpersonal skills; and special characteristics. Academic performance is evaluated according to predetermined scales while non-academic characteristics, evaluations and accomplishments are subjectively assessed during the thorough review of application materials. Final recommendations on each candidate are made collectively by an 11 member committee composed of faculty, students and community participants. Admission statistics on the most recent entering class are also included.

WHEREAS, large segments of the population of the Commonwealth of Kentucky are without adequate access to medical, dental, and legal services; and

WHEREAS, many areas of the Commonwealth have been designated as physician-shortage areas, and many of these areas also have shortages of other trained medical and professional personnel; and

WHEREAS, information indicates that students from shortage areas are more likely to return to those areas to practice; and

WHEREAS, there is a need to increase the number of students who apply for, are admitted to, and graduate from professional programs; and

WHEREAS, special efforts must be exerted to interest and prepare students from shortage areas for admission to, and success in, professional schools;

NOW, THEREFORE . . .

Introduction

The above statements are the preamble to House Bill No. 137 which was passed during the last legislative session to create a new section of Kentucky Revised Statutes, Chapter 164. Contained in the legislation are programs and procedures directed toward the amelioration of health care distribution in the Commonwealth. In part, the new law:

1. Directs the Council on Higher Education to establish a Professional Education Preparation Program (PEP) which shall coordinate, promote and support activities for students from designated

underserved areas related to admission to professional school, retention therein, and subsequent recruitment for practice in underserved areas.

2. Charges each public institution of higher education offering professional education in medicine and dentistry to publish the criteria by which applicants for admission are evaluated including the approximate weight of each criteria including a criteria based upon permanent residence in underserved or underrepresented areas of the Commonwealth.

The legislation referred to above was fostered through the action of the 1978 General Assembly which approved House Senate Joint Resolution 61 establishing an Interim Special Committee on Professional Schools Admissions of the Legislative Research Commission. The 11 member committee composed of legislators and representatives of higher education investigated the issues and prepared a preliminary document, much of which was incorporated into the legislation signed into law on March 4, 1980. Representatives of the University of Kentucky and the University of Louisville were invited to participate in the discussions of the Committee, and were requested to provide source information on the distribution of candidates and the selection procedures utilized by the institutions. It is testimony to the cooperation of both schools that a common system to evaluate candidates for admission to medi-

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Table 1
Cumulative Science and Overall
Grade Point Standing—Twenty Points Each

Interval	Points
3.90—4.00	= 20
3.80—3.89	= 19
3.70—3.79	= 18
3.65—3.69	= 17
3.60—3.64	= 16
3.55—3.59	= 15
3.50—3.54	= 14
3.45—3.49	= 13
3.40—3.44	= 12
3.35—3.39	= 11
3.30—3.34	= 10
3.25—3.29	= 9
3.20—3.24	= 8
3.15—3.19	= 7
3.10—3.14	= 6
3.05—3.09	= 5
3.00—3.04	= 4
2.95—2.99	= 3
2.90—2.94	= 2
2.80—2.89	= 1
2.80	= 0

Table 2
New Medical College Admission Test
Twenty Points

Raw Score Range	Points
72.0+	= 20
70.0—71.0	= 19
68.0—69.0	= 18
66.0—67.0	= 17
64.0—65.0	= 16
62.0—63.0	= 15
60.0—61.0	= 14
58.0—59.0	= 13
56.0—57.0	= 12
54.0—55.0	= 11
52.0—53.0	= 10
50.0—51.0	= 9
48.0—49.0	= 8
46.0—47.0	= 7
44.0—45.0	= 6
42.0—43.0	= 5
40.0—41.0	= 4
38.0—39.0	= 3
36.0—37.0	= 2
Below 36.0	= 1

cal school was agreed upon and, in fact, tested during 1979-80 before the legislation was passed by the 1980 General Assembly.

The New System

For medical school candidates the product of the above efforts is a relatively clear description of how their credentials will be evaluated.

In brief, the system scores applicants on a 100 point scale; academic factors, grade point averages and Medical College Admission Test (MCAT) scores comprise 60% of the evaluation system while non-academic factors make up 40%. More specifically, the individual factors and the relative weighting of each are as follows: cumulative science grade point average—20%; overall cumulative grade point average—20%; Medical College Admission Test performance—20%; humanitarian, service, and religious activities—10%; pre-medical recommendations/evaluations—10%; interpersonal or group accomplishments—10%;

and special characteristics, including residence in physician shortage areas—10%.

After receiving the application for admission from the American Medical College Application Service (AMCAS), letters of recommendation and other documents pertinent to the process are requested from each candidate. When all of the materials are received, the Admissions Committee carefully reviews each application. Incidentally, the Committee at the University of Kentucky is composed of four clinicians, two basic scientists, one junior and one senior medical student, one community physician, one lay citizen and the Assistant Dean for Academic Affairs as chairman. Academic points are awarded according to predetermined scales. (See Tables 1 and 2.) Medical schools are continuously faced with the difficult problem of determining whether the grades earned by a student from one institution are equal to, better than, or worse than the grades of a student from another institution. In other words, is an "A" from school X the same as an "A" from school Y? We all recognize that they are not—at least as they apply toward preparation for entrance into and survival in medical school.

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Table 3
National Applicant Pool by State of Legal Residence
1980 Entering Class Figures¹

	Applicants 10/3/80	Available Places Instate*	Ratio Applicants to Places
Alaska	40	0	—
Alabama	544	230	2.4:1
Arkansas	343	136	2.5:1
Arizona	347	88	3.9:1
California	3,390	1,012	3.3:1
Colorado	490	126	3.9:1
Connecticut	476	182	2.6:1
District of Columbia	139	482	0.3:1
Delaware	72	0	—
Florida	1,151	347	3.3:1
Georgia	680	322	2.1:1
Hawaii	217	67	3.2:1
Iowa	357	175	2.0:1
Idaho	90	1 0	—
Illinois	1,776	1,068	1.7:1
Indiana	579	302	1.9:1
Kansas	385	203	1.9:1
Kentucky	492	244	2.0:1
Louisiana	726	426	1.7:1
Massachusetts	1,008	555	1.8:1
Maryland	833	421	2.0:1
Maine	98	0	—
Michigan	1,497	575	2.6:1
Minnesota	849	328	2.6:1
Missouri	578	481	1.2:1
Mississippi	375	152	2.5:1
Montana	89	0	—
North Carolina	707	422	1.7:1
North Dakota	134	68	2.0:1
Nebraska	410	264	1.6:1
New Hampshire	49	65	0.8:1
New Jersey	1,341	277	4.8:1
New Mexico	249	73	3.4:1
Nevada	146	48	3.0:1
New York	3,991	1,677	2.4:1
Ohio	1,593	878	1.8:1
Oklahoma	426	212	2.0:1
Oregon	314	114	2.8:1
Pennsylvania	2,069	1,076	1.9:1
Puerto Rico	564	271	2.1:1
Rhode Island	127	60	2.1:1
South Carolina	382	211	1.8:1
South Dakota	147	65	2.3:1
Tennessee	672	481	1.4:1
U.S. Terr. & Poss.	28	0	—
Texas	1,894	1,110	1.7:1
Utah	273	100	2.7:1
Virginia	953	403	2.4:1
Vermont	88	93	0.9:1
Washington	460	175	2.6:1
Wisconsin	629	359	1.8:1
West Virginia	239	125	1.9:1
Wyoming	50	0	—
Unidentified	325	0	—
Foreign	319	n/a	—
*Public and Private	36,200	16,549	2.2:1

¹ Association of American Medical Colleges, 10/10/80.

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The sum of the assigned academic points is therefore adjusted according to an institution rating of undergraduate colleges and universities. Institutions are rated on a scale of one to 10, 10 being best, with school ratings determined by the past MCAT performance of medical school applicants from that institution. A student from a "10" school has zero points deducted from his academic total, while a student from a "7" school has three points subtracted, and so on. The purpose of the institutional ranking system is to compare institutions on the basis of how their students have performed on the New Medical College Admission Test as a way of equalizing the variability between institutions in what a grade actually means.

Obviously, grades and MCATs alone do not determine what kind of a physician an individual will become. A "good doctor" is often defined in different ways by different people, yet certain qualities are often described over and over again. Compassion, dedication, commitment, humanity, and competence are terms often used to describe the person we would like to have as our personal physician. While there is no foolproof way to assess these qualities in a potential "good doctor," the Admissions Committee considers a variety of factors in assessing the non-academic attributes of the candidate. As mentioned above, 40% of each candidate's overall assessment is in the non-academic area. Non-academic activities are difficult to quantify; thus, the Committee evaluation and assignment of points is more subjective than the academic category. A concerted effort is made, nevertheless, to examine the candidate's background and experiences and to award points on the basis of the nature, depth, and breadth of activities, rather than their frequency of occurrence.

Following the initial assignment of points, some applicants are regarded by the Committee as clearly outstanding prospects with substantial documentation and strong recommendations to support their candidacy. In such instances, and if the Committee is overwhelmingly in favor, these applicants may be recommended for acceptance without interview. Other candidates appearing in

the upper one-half of the applicant pool are regarded as highly attractive, and are eligible for an interview. Less competitive candidates, particularly candidates whose cumulative academic record is less than a "B" average or whose MCAT scores are less than a sum of 36 for the total examination or below four in any category, are not seriously considered for admission. Preferential interviews are granted to candidates whose permanent residence is in an H.E.W. designated physician shortage area or to candidates who were National Merit Scholars or semifinalists. All candidates who are interviewed are asked to come to the A.B. Chandler Medical Center to speak with two interviewers. The two interviews last approximately one hour each and are conducted by a member of the Admissions Committee and by a member of the faculty or a senior medical student. Particular interest is given to the breadth and depth of the candidates' experiences and educational endeavors, the extent to which they have explored the medical profession, their perceptions of and expectations for themselves in the field, and their interpersonal qualities.

Following the interview, each interviewer writes a detailed report which is forwarded to the Admissions Committee for review and discussion along with the rest of the application materials. Should the interviewers raise serious concerns about a candidate's preparation, either academic or non-academic, the candidate will be rejected and told he may resolve the problems and reapply in the future. Frequently, the interviews are positive and the Admissions Committee must assess the subtle differences in preparation, enthusiasm, and experience as referenced in the written reports.

Before the Committee meets to take action on a group of applicants, each Committee member has the responsibility to independently review each candidate's application folder. The tasks at the meeting, then, are to discuss the candidate's credentials, to review the points which have been awarded and, finally, to determine whether the candidate's position among his/her competitors affords the Committee the option to recommend acceptance to the Dean of the College. Applicants

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whose position is uncertain at the time of review will have a decision on their candidacy deferred until the nature of the applicant pool is more clearly determined. Candidates who are deferred during the processing cycle usually comprise the alternate list.

Last Year's Statistics

Kentucky residents face better odds for admission to medical school than do their contemporaries from many other states. The competition for class openings is, nevertheless, quite keen. In 1980 the combined openings between the University of Kentucky and the University of Louisville provided an acceptance potential for nearly one-half (49.6%) of the 492 resident candidates. While a few non-residents are admitted each year as partial compensation for the Kentuckians accepted by out-of-state schools, the ratio of resident applicants to state vacancies (U.K. and U.L.) places Kentucky twentieth among the nation's 126 medical schools. (See Table 3.)

Of the 425 Kentucky applicants who applied to U.K. for the 1980 entering class (not all candidates apply to both schools and some apply to neither), 45 were accepted without interview, 177 were interviewed, 154 were offered places and

102 enrolled. In addition, the Admissions Committee reviewed 621 applications from non-residents; seven were enrolled.

The Class of 1984, which matriculated on August 25, 1980, is comprised of 81 males and 28 females. Fifty-four of the 102 residents are from rural areas and 48 are from urban* counties. Twenty students are from critical physician shortage areas. Thirty-one undergraduate institutions, 16 from Kentucky, are represented in the new class. While the most frequent undergraduate major remains biology, students majoring in the arts, chemistry, physics, mathematics, and engineering have a higher percentage of acceptances. The average grade point standing is 3.57 and the scores in each section of the new Medical College Admission Test are approximately 8.5.

The medical students at the University of Kentucky are a unique blend of brains, cosmopolitan sophistication, rural understanding, dedication and high expectations. They are selected by an equitable and fair system and, in keeping with the charter of the College of Medicine, receive an education for a lifetime of service to the citizens of the Commonwealth of Kentucky.

*Urban counties include Boyd, Campbell, Daviess, Fayette, Jefferson, and Kenton.

Editor's Note

The article above was brought up for consideration by the Kentucky Medical Association Committee on Physicians' Health. This Committee is assigned the task of dealing therapeutically with problems of substance abuse, psychic disorder, and other such illnesses as they might appear in the physicians of our State.

Accordingly, we are gratified to know that Kentucky's Medical Schools have a unified candidate evaluation system and that it is apparently effective.

However, we wish to express our concern that some applicants are accepted for matriculation into the class without even a personal interview. Indeed, a large proportion are so accepted.

All of us who have been involved with candidate selection know the difficulty of basing firm recommendations on an interview which is relatively brief. On the other hand, those most experienced in this area know that the mature judgment of a knowledgeable individual forming opinions developed in a penetrating interview is still the best predictor of a candidate's eventual success. We view with apprehension a practice which does not utilize such

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an evaluation. We all know the risks of making a diagnosis based purely on printed material. Personal examinations, utilizing the physician's intuition has kept each of us from making errors that we would have made had we depended on written words alone.

Our Committee sometimes deals with people who should never have gone to Medical School. Accordingly, we would look forward to the publication of another paper which would describe the results of a study in which all serious candidates are personally interviewed. If in 10 years even one ill-suited individual is deflected from admission then the Admission Committees of our Medical Schools will have performed an even greater service.

David L. Stewart, M.D. for the Committee

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Drowning and Non-Drowning

R.D. Caldronney, M.D.

Drowning accounts for nearly 8,000 deaths per year in the United States.¹ An even more unfortunate statistic is that many of the victims are young persons free from serious underlying illnesses.

Confusion has arisen over the terminology applied to these events.² The most commonly accepted definition refers to **drowning** as death due to immersion, which usually occurs within 24 hours of the event, and **near-drowning** as an immersion episode which the person survives. "Wet drowning" refers to a submersion event in which there is an actual aspiration of fluid into the lungs, while in "dry drowning" there is not any actual aspiration of fluid into the lungs. Here death is felt to be secondary to breath holding or laryngeal spasm. By autopsy studies these two categories, wet and dry drowning, have been estimated to occur in about 90% and 10% of deaths, respectively.

Early studies of the pathophysiology of drowning focused on the differences associated with fresh water versus salt water aspiration. While one would not expect to see salt water aspiration in Kentucky a brief discussion is warranted to dispel some prevailing myths and for the benefit of those who might move to or visit coastal areas.

Initial studies³ performed on dogs showed that with fresh water aspiration there was a rapid absorption of the hypotonic fluid across the pulmonary capillary membrane. This resulted in hemodilution and hemolysis, with death being secondary to arrhythmias, especially ventricular fi-

brillation, hemolysis, acidosis and hypoxia. In contrast aspiration of salt water (equivalent to 3.5% saline) by virtue of its hypertonicity led a rapid inflow of water into the alveoli, with death secondary to florid pulmonary edema.

Later animal studies by Modell and his group at the University of Florida failed to duplicate these findings.⁴ The discrepancies were felt to be due in large part to the volume of fluid aspirated and the time the blood studies were drawn in relation to the aspiration event. When the blood samples were drawn at one hour or greater following the aspiration there were few significant changes from the animals baseline values. Further studies⁵ of near drowning victims presenting to emergency rooms failed to show the previously predicted severe electrolyte and volume changes and gave credence to the idea that the volume and electrolyte changes, which might be predicted to occur based on the tonicity of the fluid aspirated, seem to be transient in those who survive long enough to arrive at a medical facility.

The accepted mechanism of injury and death currently is felt to be primarily the severe pulmonary injury with the clinical picture being consistent with that described by the term **Adult Respiratory Distress Syndrome (ARDS)**.

Clinically⁵ almost all patients show varying levels of hypoxemia, metabolic acidosis and varying levels of respiratory distress. A point of utmost importance is that the onset of respiratory distress may be delayed for hours, requiring all patients with a history of a submersion incident to

Grand Rounds

have a period of observation. Neurologic status also encompasses a broad spectrum from a normal sensorium to coma, dependent on the length and severity of the hypoxic insult. Head injuries are not uncommonly seen in near drowning victims, especially in boating accidents, and therefore they should be searched for in the initial examination.

Treatment of the near drowning patient involves two major stages. The first is resuscitation at the initial scene, including the use of the highest concentration of oxygen available. Upon presentation to the emergency room the most immediate goals should be correction of the commonly occurring, and often severe, metabolic acidosis as well as supplemental oxygen.

Depending on the severity of the pulmonary insult, judged both on the clinical appearance of the patient and the arterial blood gases, the use of positive airway pressure during expiration may be needed. The aim of therapy, as in other forms of ARDS, is to decrease the amount of intrapulmonary shunting by keeping alveoli patent. The modes of delivering positive airway pressure will not be discussed here, but are available for review elsewhere.⁶

Prophylactic antibiotics and pharmacologic doses of steroids generally have not been of benefit in retrospective studies. Another evolving mode of ancillary treatment, although still in the experimental stage, is the use of various interventions lumped under the term "brain resuscitation,"⁷ for those patient's suffering the more severe anoxic insults.

Even though patients may appear critically ill on presentation, with modern therapy survival rates of about 90% have been reported from those centers with the greatest experience.^{5,7}

References 1. Hoff B H. Multisystem failure: a review with special reference to drowning. *Crit Care Med*, 7:310-320, 1979. 2. Modell J H. Drown versus near-drown: a discussion of definitions. *Crit Care Med*, 9:351-352, 1981. 3. Swann H G, and Spafford N R. Body Salt and Water Changes During Fresh and Sea Water Drowning. *Texas Rep Biol Med*, 9:365-382, 1951. 4. Modell J H, Grub M, Moya F et al. Physiologic Effects of Near Drowning with Chlorinated Fresh Water, Distilled Water, and Isotonic Saline. *Anesthesiology*, 27:33-41, 1966. 5. Modell J H, Graves S A, and Ketover A. Clinical Course of 91 Consecutive Near-Drowning Victims. *Chest*, 70:231-238, 1976. 6. Stevens P M. Positive End Expiratory Pressure Breathing. *Basics of Resp Disease*, 5:3, 1977. 7. Conn A W, Montes J E, Barker G A et al: Cerebral Salvage in Near-Drowning Following Neurological Classification By Triage. *Canad Anaest Soc J*, 27:201-210, 1980.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

for Knotts in the night

Prescribe new formula

Quinamm*

(quinine sulfate tablets)

each tablet contains quinine sulfate 260 mg



Specific therapy for painful night leg cramps

Merrell Dow

*Trademark of MERRELL-NATIONAL LABORATORIES Inc.,
Cayey, Puerto Rico 00633

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes, or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

Quinamm™ (quinine sulfate tablets)

CAUTION: Federal law prohibits dispensing without prescription
BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose 6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General: Quinamm should be discontinued if there is any evidence of hypersensitivity. (See CONTRAINDICATIONS.) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine

have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine and result in respiratory difficulties.

Urinary alkalinizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Quin Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes.

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM/kg) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative, when mammalian liver homogenate was added. Positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mother's taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage. (Individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoproteinememia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision; tinnitus; deafness and vertigo; headache; nausea; vomiting; fever; apprehension; restlessness; confusion; and syncope.

Dermatologic: allergic, cutaneous rashes (urticarial, the most frequent type of allergic reaction; papular or scarlatiniform); pruritus; flushing of the skin; sweating; occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related); epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSSAGE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October, 1980

Licensor of Merrell:

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

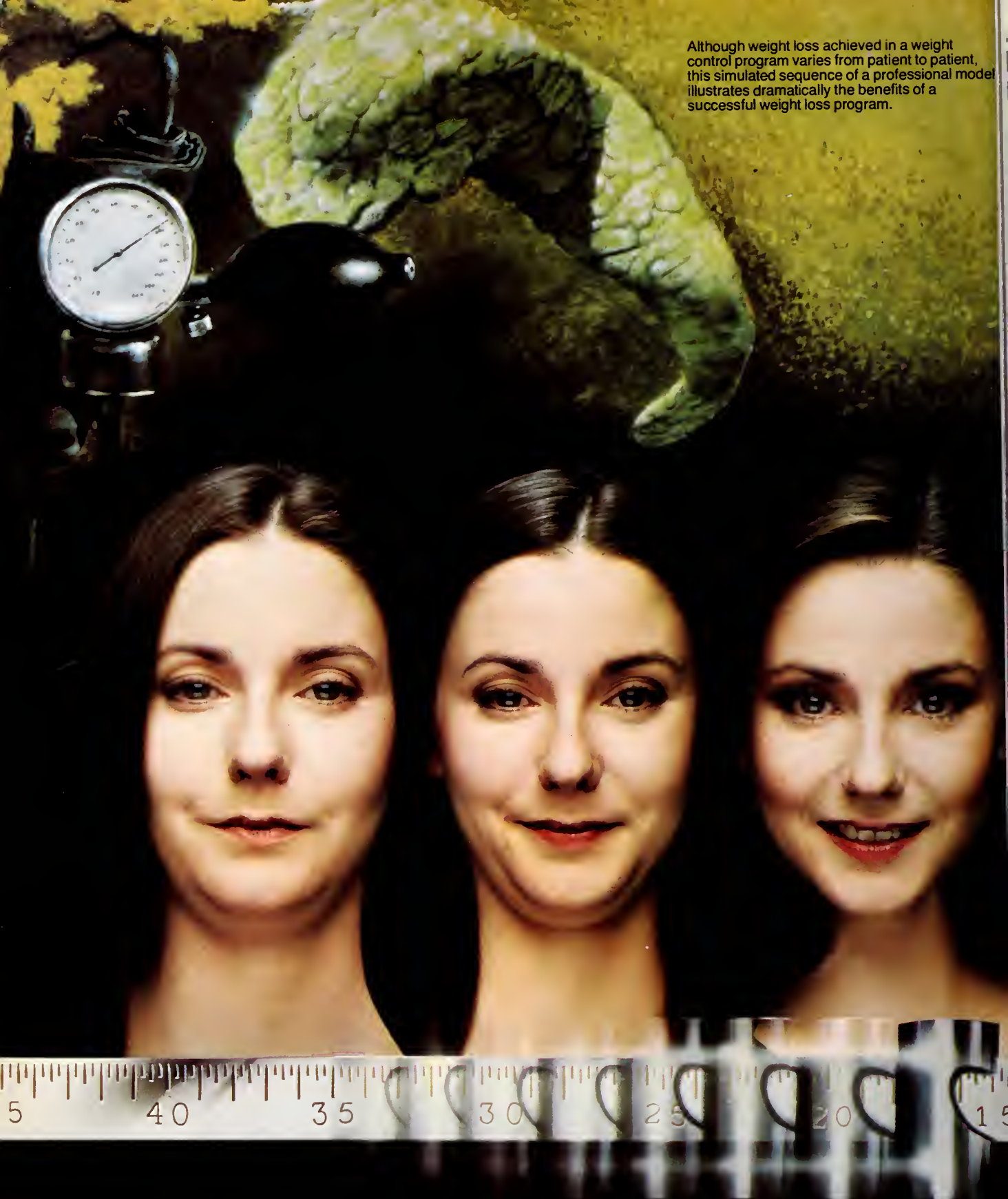
Direct Medical Inquiries to

Merrell



MERRELL DOW PHARMACEUTICALS INC.
Subsidiary of The Dow Chemical Company
Cincinnati, OH 45215, U.S.A.

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.



getting there...

...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

prescribe

Tenuate* Dospan*[®] ^{IV} (diethylpropion hydrochloride USP)

75 mg controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Precautions and Adverse Reactions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate—it makes sense.
And it's responsible medicine.**

Merrell Dow

*Registered Trademarks of MERRELL-NATIONAL LABORATORIES Inc.,
Cayey, Puerto Rico 00633

References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed., New York: Raven Press, 1978, pp. 391-404

Tenuate*[®] ^{IV}
(diethylpropion hydrochloride USP)

Tenuate Dospan*[®] ^{IV}
(diethylpropion hydrochloride USP)
controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result)

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect, rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdose. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria

DOSE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride) One 25 mg tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenolamine (Regitine*) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage

Product Information as of June, 1980

Licensee of Merrell*

MERRELL-NATIONAL LABORATORIES Inc.
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Direct Medical Inquiries to:

Merrell

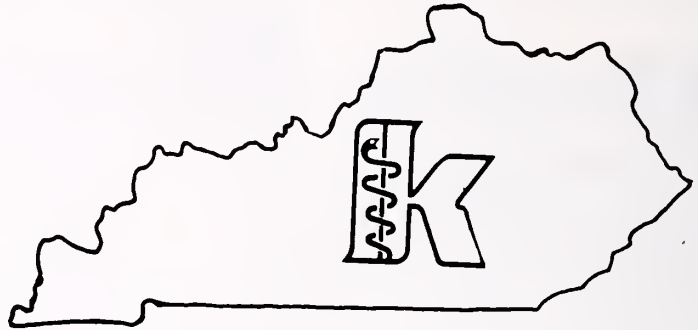


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Sponsored by the Kentucky Medical Association

XMAS

WHEN my father and later Walter Hume, Jr., were the editors of this magazine, care was taken each Christmas to publish an editorial of sincere gratitude to drug companies who lend so much support to the *Journal of the Kentucky Medical Association* by advertising. I now feel guilt for allowing this genteel practice to lapse.

Designing the *Journal* to make it more informative and readable is a continuous process. The Board of Editors attends to this periodically. But I can guarantee that the managing editor and the associate executive editor constantly work to improve the composition toward the end that each page will draw the reader into it.

The *Journal* enthusiastically participates with all the members of the State Medical Journal Advertising Bureau to improve the communication energies of both the editorial and advertising pages. We adhere to their advice to constrain the volume of advertising so that it does not overwhelm the editorial content.

There was a prolonged period of years when the amount of advertising submitted was much less than we were accustomed to and this coincided with Board of Trustees discomfort that our red balance was increasing, perhaps exceeding the value of the *Journal*. With the more recent normalization of advertising volume the pressure has eased but the balance remains shockingly negative.

If you refer to the letter in this issue from Doctor Garrett Adams you will find a concise, articulate, constructive criticism of the *Journal* for which we are also grateful. The letter has stimulated long and searching introspection.

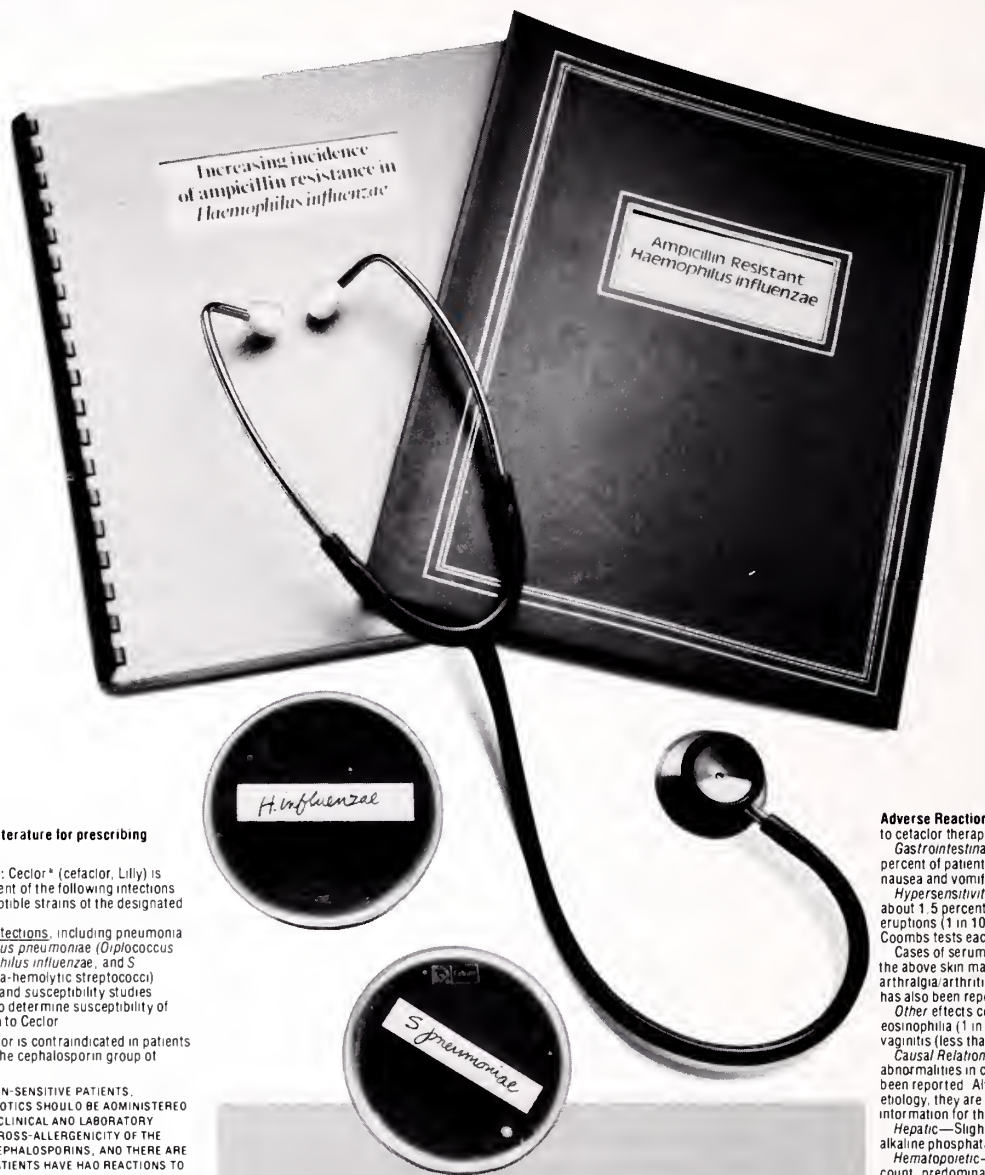
His criticism of our method of printing references falls on many sympathetic ears. The second reason for printing references en bloc rather than listed is that the bloc makes a more attractive gray accent on the page than the straggling anemic list. The first reason is, of course, the money it saves. In most articles of merit the most important information is contained in the data and the references and these are the most difficult to read. There was a period when the *Journal* offered references only on request, again to economize, and we hope not to be driven to that again. As for the flattering comparison of the *Journal* with the *Lancet* our former editor John Llewellyn remarks, "The *Lancet* is one of the few journals probably still operating in the black."

The suggestion that we realign the budget in such a way as to have fewer, better advertisements is received less sympathetically. Realignment won't hack it.

Let us sincerely thank the drug companies and Doctor Adams for their help, support and interest. We shall continue trying to increase the value, attractiveness and merit of the *Journal*.

A. Evan Overstreet, M.D.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary Consult the package literature for prescribing information.

Indications and Usage: Cefclor® (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy:—Although no teratogenic or antiterility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in terrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy:—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁵

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefclor therapy are uncommon and are listed below. Gastrointestinal symptoms occur in about 2-5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain:—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic:—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic:—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal:—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor® (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8: 91, 1975.
2. Antimicrob. Agents Chemother., 11: 470, 1977.
3. Antimicrob. Agents Chemother., 13: 584, 1978.
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5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13: 861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630.

100061

LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the *Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor

What a sneaky way to find how many doctors read editorials—misspelling “grammar!” (April 1981, page 221)

Robert Kinnaid, M.D.
Lexington, KY

To the Editor:

This letter contains suggestions for a more readable *Journal of the Kentucky Medical Association* and a good joke. The joke is in the last paragraph for those who want to get right down to business. As to the *Journal*, I think improvement is needed in its organization and appearance, particularly regarding the amount and the arrangement of advertising.

If you have the May issue at hand, turn to page 279.¹ Three items compete for your attention: “Acknowledgements” for Dr. St. Clair’s article, “Manuscript Information” and a big gray glob in the upper right hand corner advertising pills. This arrangement would not be surprising in some newspapers, but authors and readers of the *Journal* deserve a neat attractive presentation without distracting advertisements. Advertising should always be placed in a separate area from original contributions, as the *Journal* generally does.

Two other points on advertisement in the *Journal*: (1) There is too much. (2) Occasionally medicines of such dubious merit are advertised that I am really embarrassed to support their advertisement in my journal. The quality of the *Journal* can be improved by realigning the budget in such a way as to have fewer, better advertisements of reputable products.

In the same issue, look now at pages 295 and 296. Here are two full page figures, interesting and well executed, but how do they relate and to what? They are labeled Figure 4 and Figure 5, respectively, but no author’s names, no title, and no section heading appear

on the pages to identify the source of the figures. You may deduce, as I did, that they accompany the letter to the editor on the preceding pages, similarly unlabeled.² Every page should have an identifying guidepost for the reader, e.g. “Correspondence.”

- References:** 1. References are for referring to. 2. They are an essential part of a scientific paper. 3. Most journals do reduce the size of type for references in order to save space. 4. Nobody but the *Journal of the Kentucky Medical Association* squeezes them up like this, do they? 5. Even *The Lancet*, which has tiny type size for references, lists each reference separately, like this. 6. Please change the listing style for References, so your readers can refer to them.

In closing I want to thank you for one of my best laughs. “Of Lines and Tigers” in the April issue,³ a pep talk for contributors to the *Journal*: “The fault that we find with articles . . . is simply one of poor syntax . . . Grammer (sic) has been marginal. The spelling for the most part has been good.” I suppose spelling, like beauty, is in the eye of the beholder.

Garrett Adams, M.D.
Louisville, KY

References 1. St. Clair H: Psychiatrists—Physician First, Specialists Second. *J Ky Med Assoc* 79:275 (May) 1981. 2. Stumbo WG, Allen DT, and Nelson R: Changing patterns in the threats to health for Kentuckians 1900-1980, letter to the editor, *J Ky Med Assoc* 79:291 (May) 1981. 3. Miller MF: Lines and Tigers, editorial, *J Ky Med Assoc* 79:221 (Apr) 1981.

Editor’s Reply

Thank you for your letter containing suggestions for improving the *Journal of the Kentucky Medical Association*.

Designing the *Journal* to make it more informative and readable is a continuous process. We will consider your suggestions and take an objective look at the arrangement and organization of the *Journal*, particularly

Letters

the advertisements, and see what can be accomplished.

It is reassuring to know that you are concerned enough about the *Journal* to take time in making these suggestions.

It's smarter to

LEASE

cars, trucks and equipment

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Let us tell you why and how.

General LEASING

121 Bauer Ave., Louisville 40207

(502) 896-0383

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Branchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae*

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

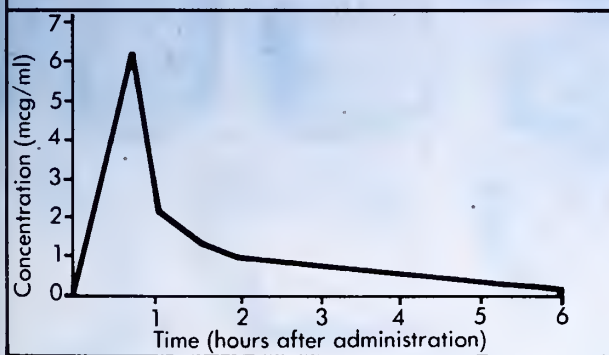
INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults. †depending on severity

Half the dose
is absorbed in 9 minutes!
compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{1/2}$ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories • Philadelphia, Pa. 19101



Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W
(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW
NAME

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

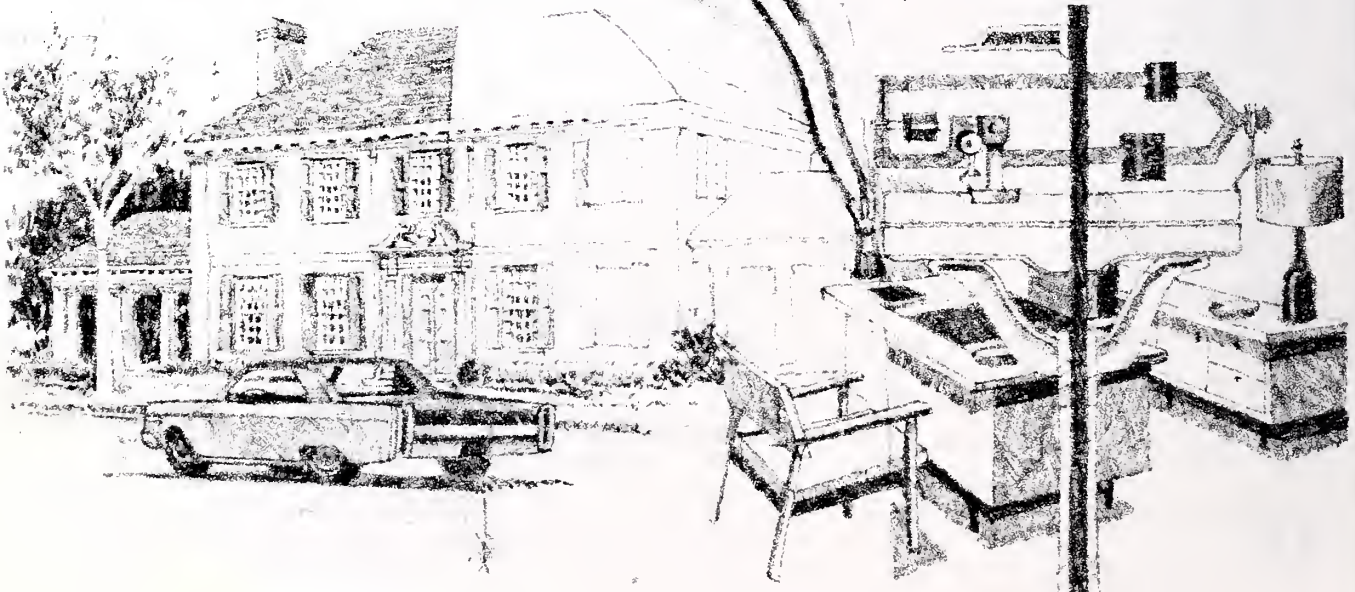
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



AUXILIARY



The Auxiliary to the Kentucky Medical Association will hold its fall Board Meeting in conjunction with the KMA's Annual Meeting in Louisville at the Ramada Inn on September 21-23. Every physician's spouse is invited, and several events of interest have been planned. The schedule is as follows:

September 21	12:00- 4:00PM	—Registration and Information—Lobby
	1:00- 5:00PM	—Hospitality Room
	1:00- 2:00PM	—Finance Committee Meeting—Presidents Room
	2:00- 4:00PM	—Planning Committee Meeting—Presidents Room
	6:00PM	—KEMPAC Reception Dinner—Julia Bell Room
September 22	8:00-11:00PM	—Registration and Information—Lobby
	8:00-11:00 & 3:00- 5:00PM	—Hospitality Room
	9:00-11:00AM	—Fall Board Meeting—Julia Belle Room
	12:00 Noon	—Luncheon at Hyatt Regency Downtown, followed by a Fashion Show presented by the Designer Room at Bacon's. Transportation will be provided for those who need a ride.
	5:30PM	—Reception—AKMA and KMA—Courtyard, Ramada Inn
September 23	7:30AM	—Shape Up For Life Jog—For physicians, and spouses, et al. Brisk walkers please join us. Assemble at east end of Bluegrass Convention Center. Trophies and awards to be given out.
	8:00AM-10:00PM	—Hospitality Room
	9:00AM- 5:00PM	—CPR Certification and Re-Certification for Physicians, Spouses, and Nurses.

Members from the Jefferson County Auxiliary will serve as hostesses, and we all extend our welcome to you and your spouse to visit with us in the Hospitality Suite. Enjoy a cup of coffee and refreshments, make new friends and meet old acquaintances. Our State Quilt, pictured above, will be on display in our Hospitality Room. The quilt is a state project for the benefit of AMA-ERF. The squares were quilted by Auxiliary members, and the squares highlight a special point of interest to the area in which the members' county is located. The quilt was assembled by Dorothy Rush our AMA-ERF Chairman. The lucky winner of the quilt will be announced at the luncheon on Tuesday. Please come share the beauty of this labor of love with us. We look forward to seeing each and everyone in September.

For further information, contact Mrs. John D. Noonan, AKMA President, 138 Minerva Pl. Paducah, 42001, or Mrs. A. Franklin White, Chairman, 5106 Dunvegan Rd. Louisville 40222.

MYTHS, HALF TRUTHS, FINALLY THE TRUTH MALPRACTICE



Lately, a great deal of misinformation has been circulated on the subject of professional liability insurance. At ICA we think it's time you got the facts.

JUDGING AN INSURANCE COMPANY BY ITS SIZE IS LIKE CHOOSING A DOCTOR BY HIS HEIGHT.

Big is not automatically better. Contrary to what large insurance companies would like you to believe, financial stability, experience, and quality coverage are totally unrelated to size.

First, greater size does not make a company more stable. Insurance companies are regulated on the amount of risk they may assume. A large company's ratio of risk to assets is identical to a small company's.

True measure of a company's stability comes from the state regulatory boards and "Best's Insurance Reports." ICA has met the rigid state requirements in every market where we've applied. And "Best's" has given ICA an exceptionally good policyholders' rating.

So don't be fooled by big boasts. There are better ways to judge a company. Look for experience. But make sure it's experience that counts. A huge company's years devoted to car and accident insurance won't help. Medical malpractice insurance is totally different.

At ICA we know. Professional liability is our field. Over the years we have consistently offered the strongest possible benefits combined with the highest standards for the professional handling of claims.

HOW A TORNADO IN TULSA CAN SEND YOUR MALPRACTICE RATES THROUGH THE ROOF.

Insuring with a large company has its hazards. Like tornados or floods. You see your rates may not be set just by your coverage. When a big company has a big loss, *all* their policies help pay.

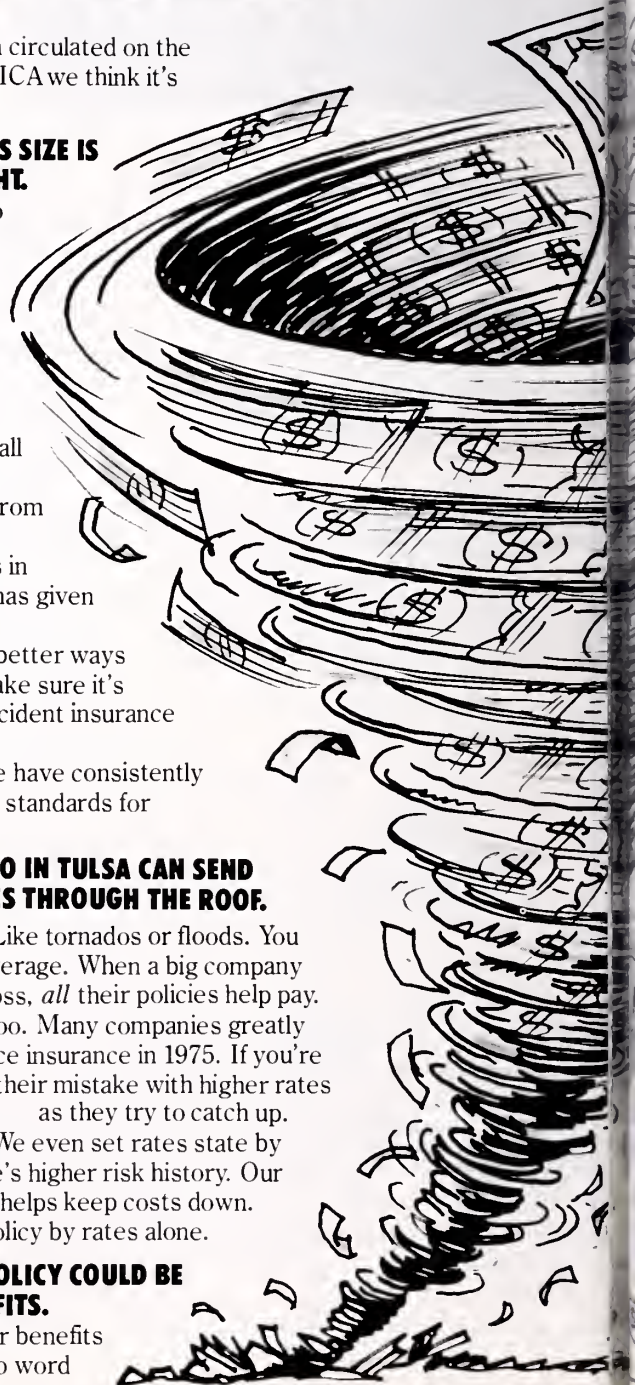
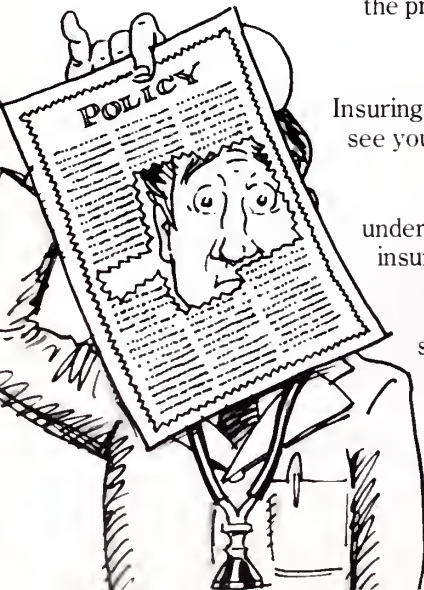
Higher rates happen another way, too. Many companies greatly underestimated the cost of writing malpractice insurance in 1975. If you're insured with them today, you're paying for their mistake with higher rates as they try to catch up.

At ICA our rates reflect true costs. We even set rates state by state. So you don't pay for another state's higher risk history. Our strong handling of frivolous claims also helps keep costs down.

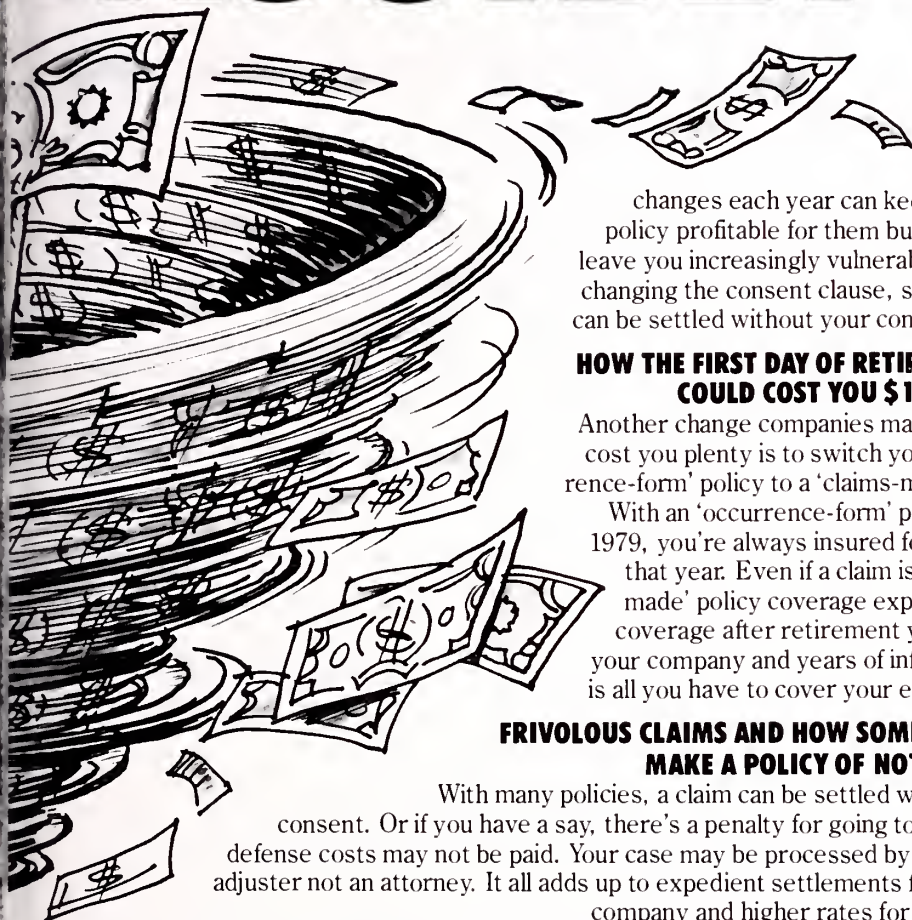
But don't judge a policy by rates alone.

HOW RENEWING THE VERY SAME POLICY COULD BE GIVING YOU VERY DIFFERENT BENEFITS.

Do your rates stay the same while your benefits shrink? At some companies one or two word



TRUTHS, AND FACTS ABOUT INSURANCE.

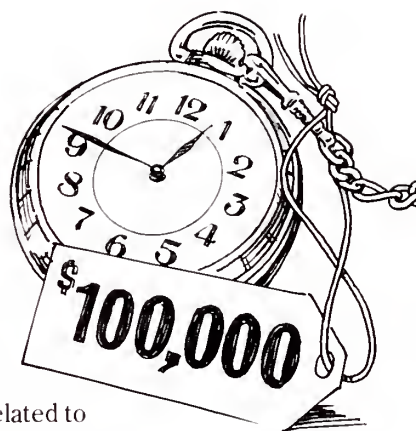


changes each year can keep a policy profitable for them but can leave you increasingly vulnerable. Like changing the consent clause, so a claim can be settled without your consent.

HOW THE FIRST DAY OF RETIREMENT COULD COST YOU \$100,000.

Another change companies make that can cost you plenty is to switch your 'occurrence-form' policy to a 'claims-made' one.

With an 'occurrence-form' policy in say 1979, you're always insured for claims related to that year. Even if a claim is made in 1999. With a 'claims-made' policy coverage expires completely if you fail to renew. To keep coverage after retirement you may have to pay an exorbitant fee set by your company and years of inflation. And the limited coverage it buys you is all you have to cover your entire career.



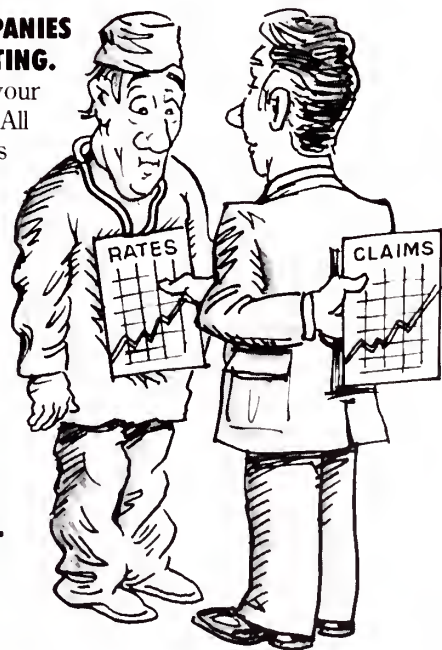
FRIVOLOUS CLAIMS AND HOW SOME COMPANIES MAKE A POLICY OF NOT FIGHTING.

With many policies, a claim can be settled without your consent. Or if you have a say, there's a penalty for going to court. All defense costs may not be paid. Your case may be processed by a claims adjuster not an attorney. It all adds up to expedient settlements for the company and higher rates for you.

At ICA policies are designed to protect you. Tough, professional handling of claims guards your reputation and helps keep costs down. Ours and yours. At

ICA we can offer what others can not. Because we are a doctor and attorney owned company that specializes solely in professional liability insurance. Our background and dedication to this one field have allowed us to both know its needs and know how to meet them.

For more facts, contact: Insurance Corporation of America, ICA Center, 4295 San Felipe, Box 56308, Houston, Texas 77027. 1-800-231-2615. In Texas 1-800-392-9702.



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**PROFESSIONAL
LIABILITY
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WE'RE THE SPECIALIST IN THE FIELD

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Specialized Service
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is a high mark of distinction

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LOUISVILLE OFFICE: Donald G. Greeno, Representative
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LEXINGTON OFFICE: Charles E. Foree, Representative
Suite 103B, 152 East Reynolds Road
Telephone: (Area Code 606) 272-9124, Mailing Address: P.O. Box 24249, Lexington, Kentucky 40524



Your Arthritis Foundation gratefully accepts MEMORIAL GIFTS by telephone (502) 459-6460 or by mail. Acknowledgement is sent promptly to the bereaved family.

**THE KENTUCKY CHAPTER
ARTHRITIS FOUNDATION
1381 Bardstown Road
Louisville, Kentucky 40204**

Current Surgical Diagnosis & Treatment, Fifth Edition

Edited by J. Englebert Dunphy, M.D. and Lawrence W. Way, M.D., Lange Medical Publications, 1981, 1138 pages

The biennial revision of this comprehensive surgical digest is a well worthwhile acquisition. For the bibliophile interested in modernizing his surgical education reviewing and relearning are nicely expedited with this book. Befitting the Lange Series tradition and this particular paperback's ancestors, all aspects of surgical practice, both technique and management, anesthesia and horizons of future treatment are represented. The initial forth of the book deals with the approach to the patient outside the surgical theater. Normal healing with its scholarly investigations is well and clearly presented. The usual segments on pre and post-operative care deal with infection, fluid and electrolyte management, metabolism and nutrition and finally shock. The revisions done from their predecessors in past editions are welcomed.

The heart of the book covers with anatomical categorization surgical medicine. Structure is imperative to remember and with this background, diseases—both benign and malignant—congenital malformations and diagnostic procedures are included for each area of the body. In addition diagnostic methods are described by several authors including a very useful, though perhaps unnecessary, chapter on diagnostic radiology. The advent of organ transplantation and the challenge of evolving cancer therapy are summarized.

An unfortunate sign of the times is the inclusion of a legal medicine section, done with the attorney—author's benevolent but prophylactic advice.

A prodigious appendix guarantees the handiness of the handbook, with virtually no part of the book left without some recall.

Review and for the curious an updated bibliography in most chapters assures the reader of a useful book for daily medicine.

Complications in Obstetric and Gynecologic Surgery

Edited by George Schaefer and Edward A. Graber, Harper and Row, 1981, 492 pages

This new textbook sequesters the possible adverse results of a substantial number of operative procedures. In the domain of the obstetric and gynecologic practice lays a broad spectrum of surgical technique, each with its champions and detractors. In this fair, eclectic book, the editors have tapped the experience of their distinguished colleagues not in the usual descriptions of elegant surgical technique, but upon their shared experience in the more dismal and feared realm of the misadventure. The book is orderly with an introduction to accepted procedures, then the cataloging of various misfortunes that

befall the surgeon and one or several methods to recover a successful outcome. The editors take license to comment and often vote for their command decision as if they had been at the front line. There are also sections dealing with infections and septic shock, some from poor technique, but each section is helpful with specific remedies given.

Never to be forgotten and repeatedly emphasized is the evaluation and preparation of the patient, specifically in this book with chapters on pulmonary, cardio-vascular, fluid, electrolyte and hematological considerations. Prophylaxis is the best treatment for untoward surgical mayhem.

Procedural problems are given adequate exposure, with laparoscopy, culdoscopy and intrauterine device chapters.

Illustrations are plentiful, well presented and readily credited from their journal origin. A few tables and graphs, x-rays, sonograms and the like are well placed and very helpful.

For the practitioner the detail may be occasionally insufficient, but nevertheless being familiar with what may lie ahead is educational. Some chapters are unreferenced, a glaring omission for the curious and still concerned reader.

To read the book through is stimulating if not at times alarming. Yet in conclusion, the education is most helpful.

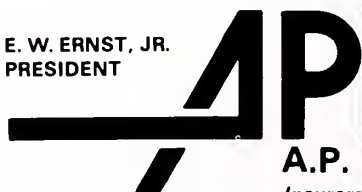
WE ARE THERE WHEN YOU REALLY FEEL ALONE!

Being "laid up" from an accident or sickness is one of the loneliest times for a normally busy person.

Even though we probably won't visit you during a period of disability, we try to give some peace of mind by providing you adequate income protection.

KENTUCKY MEDICAL ASSOCIATION DISABILITY INSURANCE PROGRAM

**E. W. ERNST, JR.
PRESIDENT**



631 Lincoln Federal Bldg.
River City Mall
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.
Insurers of Professional Groups Since 1939

Doctor Blackburn is Nominated President-Elect of KMA



Dwight L. Blackburn, M.D., Berea, Chairman, Board of Trustees, has been nominated for the office of President-Elect of the Kentucky Medical Association. Doctor Blackburn has been elected to two consecutive terms as Trustee of the 11th Trustee District and has served as Chairman of the Board of Trustees since 1979. He also serves as a member of the Board of Directors of the Kentucky Medical Insurance Company.

A native of Newark, Ohio, Doctor Blackburn is a graduate of Berea College and the University of Louisville School of Medicine. He is a Past President of the Madison County Medical Society and serves on the staffs of Berea Hospital and Pattie A. Clay Hospital in Richmond. Doctor Blackburn is engaged in the practice of Family Medicine in Berea, where he resides with his wife, the former Dorothy Davis.

Extremely active in community and civic affairs, Doctor Blackburn previously served 12 years as a member of the Berea College Board of Trustees and is the former Chairman of Berea Independent School District Board of Education. In 1966 he was elected Chairman of the Central Kentucky School Boards Association. Recipient of numerous awards, Doctor Blackburn has been honored as Lions Club Citizen of the Year, Chamber of Commerce Man of the Year; and, in 1976, received the Distinguished Alumnus Award from Berea College.

The Kentucky Surgical Society recently held its annual meeting at Lake Barkley. William T. Swartz, M.D. of Lexington is the President, Hiram C. Polk, Jr., M.D., Professor and Chairman of the Department of Surgery at the University of Louisville is the President-Elect, and William T. Rumage, Jr., M.D., Associate Clinical Professor of Surgery at the University of Louisville School of Medicine will continue as Secretary. The Society's next meeting will be in May of 1982.



Report of the 14th Trustee District

Robert Noble, M.D., Associate Professor of Medicine, will be the guest speaker at the Annual Trustee Meeting, District 14. It will be held at the Green Meadow Country Club beginning at 4 p.m., August 21, 1981.

Subject matter will include an update on antibiotics. Beecham Laboratories will sponsor his appearance in part. Social hour and dinner will follow.

Guests will include Frank R. Pitzer, M.D., President of KMA, Ballard W. Cassady, M.D., KMA President-Elect and Riley Lassiter, Vice President of operations of the Kentucky Medical Insurance Company.

George G. Nichols, M.D.
14th District Trustee

CHANGING ADDRESS?

Please let us know at least four weeks before changing your address.

Send new address to:
Journal of the Kentucky Medical
Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205

Headquarters Activity

AUGUST

5-6 KMA Board of Trustees, Louisville
11 *Journal* Editors, Louisville

SEPTEMBER

8 *Journal* Editors, Louisville
22-24 KMA Annual Meeting, Louisville

OCTOBER

17 Physician Recruitment Fair, Louisville

Pioneers in Medicine For the Family



BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Lopurin™, Ru-Tuss® and Ru-Vert®. This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • **SU-TON®** • **TWIN-K®** • **TWIN-K-CI™**



**For the Majority of
Steroid-Responsive Dermatoses*
Seen in Family Practice**

F-E-P CREME®

(Iodochlorhydroxyquin — Pramoxine HCl — Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON® Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylentetrazol.	30 rr
Niacin.	50 rr
Vitamin B-1.	10 rr
Vitamin B-2.	5 rr
Vitamin B-6.	1 rr
Vitamin B-12.	3 mc
Choline.	100 m
Inositol.	50 m
Manganese (as Manganese Sulfate).	1 m
Magnesium (as Magnesium Sulfate).	2 m
Zinc (as Zinc Sulfate).	1 m
Iron (as Ferric Pyrophosphate, Soluble).	22 m
Alcohol.	18%

See prescribing information on last page of this advertisement.



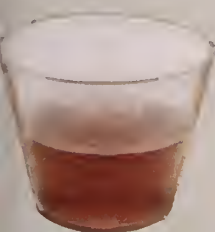
For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement
Designed for prophylactic and therapeutic use
with diuretics and adrenocorticoids.
Pleasant taste and convenient dosage aid
patient compliance.
The organic salt of potassium can be given as a
liquid without producing significant gastric
symptoms and without an untoward effect on
the mucosa of the small intestine.¹

Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.



In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with
chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.¹

See prescribing information on last page of this advertisement.



F-E-P CREME®

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective. Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urtica; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani); folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (caulis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.

2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme 1/2 ounce (15 gm) tubes NDC 0524-0026-51

F-E-P Creme Plain 1/2 ounce (15 gm) tubes NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an anesthetic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz)

NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz)

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-CI™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbitol and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CI is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 mEq/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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ESTABLISHING MEDICAL ETHICS FOR A CHANGING PROFESSION

As a physician or medical student, you automatically have a strong vested interest in medical ethics. Ethics are a traditional frame of reference for society's attitude toward physicians. Today in America, there is more reference to that frame than ever before.

That's because so many of today's health-care issues are ethical challenges. As outstanding examples, consider the moral right and wrong involved in:

- Seemingly excessive or needless costs of medical services—at a time when cost is the chief health-care issue and the chief basis for government intervention in care.
- Medicine's enhanced ability and obligation to prolong the lives of the terminally ill—versus pressures for mercy killing and for limits on the expenditure of health-care resources.
- Rules and procedures that could make medical records more accessible to outsiders. The moral conflict here is between the principles of confidentiality and the stake of third parties (notably government) in medical oversight and review.
- The question as to where various biomedical advances, such as genetic engineering and test-tube fertilization will lead us?

Those and similar questions involve the very character of

AT THE AMERICAN MEDICAL ASSOCIATION
WE'RE INVOLVED IN MEETING
THE IMPORTANT CHALLENGES AND
RESPONSIBILITIES OF THE 80'S
This is another in a series of reports on
major issues facing the medical profession. The purpose is to
inform physicians and medical students on what the AMA is
doing, on behalf of the profession and the public, to influence
decisions that will affect health care in the next decade and beyond.

medical practice, including your own. Ethically wrong answers could distort that character.

Physicians have to do their best to provide answers that are both high-minded and sure-footed. Acting in concert, we have to come forth with sound ethical principles and applications.

The AMA has stood for traditional moral values from its very beginnings but has been flexible enough to keep adapting to new needs. In order to adapt, the AMA (by vote of its House of Delegates) revised its Principles of Medical Ethics last July—the fifth time it has done so.

Here are some of the ways in which the AMA has been applying medical ethics to relevant current issues . . . on your behalf:

- Stimulation of ways to cut down on needless or excessive health services and costs. This includes peer and utilization review, physician participation in PSROs, cost-benefit analysis, and alternatives to hospitalization whenever feasible.
- Model state legislation for disciplining the wayward or incompetent physician, who can be an economic as well as a medical problem. Twenty-three states now have laws that wholly or partially resemble the AMA model.
- New ethical standards on such topics as genetic engineering, test-tube fertilization, and euthanasia . . . as set forth in the latest edition of the AMA Judicial Council Opinions and Reports.
- Tireless legislative and legal efforts to protect the confidentiality of patient records.
- To maximize our effectiveness, we need YOUR MEMBERSHIP. The larger our membership (230,000 now), the bigger our influence. We need influence in coordinating the ethical commitment of American medicine . . . and in clarifying that commitment to government, to society, and throughout our profession.

We need YOU . . . if we're to give you all the help that you need.

For details on how to join, contact your state or county medical society or the Office of Membership Development, American Medical Association, 535 N. Dearborn, Chicago, IL 60610 (312) 751-6410.

Highlights of the 11th Annual Emergency Medical Care Seminar

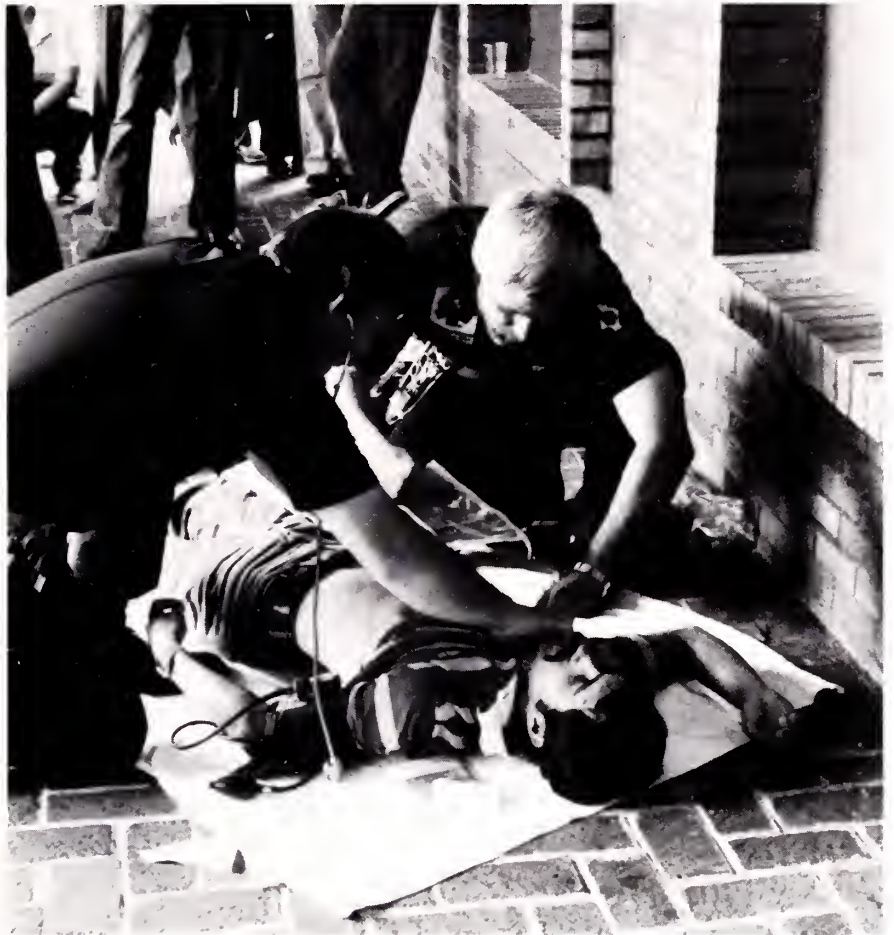
More than 600 people were at this year's Emergency Medical Care Seminar (EMCS), June 9, 10 and 11—the largest crowd ever to attend the seminar.

Designed as a continuing education program for paramedics, nurses, physicians and administrators, the seminar featured an outstanding volunteer faculty of Kentucky physicians, an ambulance competition and several exhibits by equipment suppliers.

Janice A. Mendelson, M.D., combat trauma specialist and Colonel in the U.S. Army Medical Corps, was the Tuesday luncheon guest speaker. Her discussion was on "Initial Care of Multiple Injured Patients."

George R. Nichols, II, M.D., forensic pathologist and chief medical examiner for Kentucky, was guest speaker for the luncheon on Thursday. His presentation topic was "Protecting the Evidence."

The Emergency Medical Care Seminar was sponsored by the Emergency Medical Care Committee of the Kentucky Medical Association.



The "victim" of a mock accident is treated by paramedics during the judging of the ambulance competition.



An eight-hour CPR Course was sponsored by the Red Cross as part of the seminar.



George R. Nichols, II, M.D., Chief Medical Examiner for Kentucky was one of the guest luncheon speakers.



Janice A. Mendelson, M.D., Colonel in the U.S. Army, spoke during Tuesday's luncheon on "Initial Care of Multiple Injured Patients."

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All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

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EMERGENCY MEDICINE: Clinical positions available in lovely Bluegrass Region just 25 miles south of Lexington. Physicians chosen will enjoy an excellent income, flexible scheduling, paid liability insurance and total specialty support in a moderate volume emergency department. For further details call Michelle Grimm toll-free, 1-800-325-3982; or send credentials in confidence to 970 Executive Parkway, St. Louis, MO 63141.

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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any anxiolytic agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan[®]
for (lorazepam)
Anxiety

Dosage: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

How Supplied: 0.5, 1.0 and 2.0mg tablets.



Four practical reasons to prescribe **Ativan[®]** for (lorazepam) **Anxiety^{*}**



1

No interaction with more than 300 drugs[†]

In clinical studies, Ativan was given concomitantly with hundreds of medications, including gastrointestinal and cardiovascular, with no reported interactions. Whereas the interaction of diazepam and cimetidine has been shown to cause increased sedation in patients taking both drugs, the clearance of Ativan is not delayed by Tagamet.[‡]







2

Lets most patients stay active

Long-acting benzodiazepines have long-acting metabolites with activity which can produce excessive accumulation that may lead to unwanted sedation. Ativan[®] has no active metabolites, reaches steady state in 2 to 3 days and usually does not cause oversedation. Also, the shorter half-life of Ativan is consistent with b.i.d. dosage, so drug hangover is seldom a problem the next morning.

3

Not appreciably affected by aging

Unlike the long-acting benzodiazepines—diazepam , chlordiazepoxide , clorazepate  and prazepam —the metabolism and clearance of Ativan are not appreciably affected by the aging process.



4

Not significantly affected by liver dysfunction

Ativan[®] is metabolized in one simple step to an inactive glucuronide; its absorption and excretion are not significantly altered by cirrhosis or hepatitis. By contrast, the metabolism of diazepam and chlordiazepoxide has been reported to be significantly altered in patients with liver dysfunction.

See important information on following page.

Wyeth Laboratories
Philadelphia, PA 19101



TM

Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

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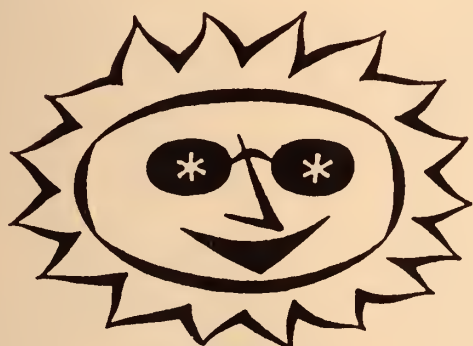
Ho Woon Lee, M.D., Morehead

1981 Annual Meeting Section

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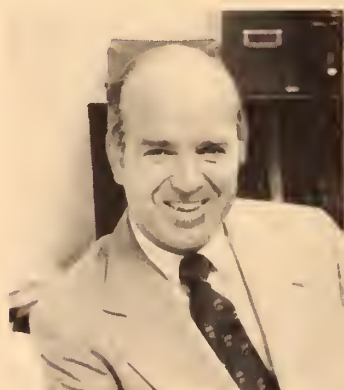
Frank R. Pitzer, M.D.
President



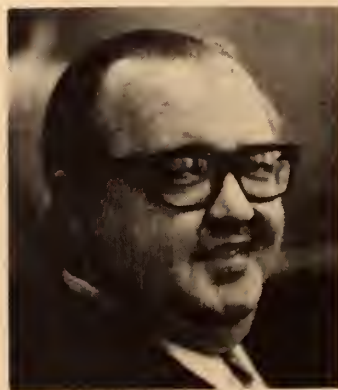
Ballard W. Cassady, M.D.
President-Elect



Charles B. Spalding, M.D.
Vice President



S. Randolph Scheen, M.D.
Secretary-Treasurer



Bennett L. Crowder, II, M.D.
Speaker of the House



Peter C. Campbell, Jr., M.D.
Vice-Speaker of the House

PRESIDENT-ELECT **Ballard W. Cassady, M.D.** **Pikeville**

Ballard W. Cassady, M.D., will be installed as President of the Kentucky Medical Association at the President's Luncheon on Wednesday, September 23.

A general surgeon, Doctor Cassady received his medical degree in 1946 from the University of Louisville School of Medicine. Doctor Cassady is a Fellow of the American College of Surgery and has served as President of the Kentucky Chapter. He is a member of the Pikeville Medical Society, the Kentucky Medical Association, the American Medical Association and the Southeastern Surgical Congress.

A past President of the Pikeville Medical Society, Doctor Cassady has served two terms as Trustee of the 14th District of the KMA and as Vice Chairman and Chairman of the KMA Board of Trustees. He has been Chairman of KMA's Budget Committee for the past 10 years.

In 1978 the KMA formed the Kentucky Medical Insurance Company and Doctor Cassady was named Chairman of the Board and President.

VICE-PRESIDENT **Charles B. Spalding, M.D.,** **Bardstown**

Doctor Spalding, a family physician, has been in group practice in Bardstown since 1955. He is coroner for Nelson County and has served as Fourth District Trustee of KMA since 1977. Doctor Spalding is a 1953 graduate of the University of Louisville School of Medicine. He is a member of the Nelson County Medical Society, the AMA and is former president of the Kentucky Academy of Family Physicians.

SPEAKER OF THE HOUSE **Bennett L. Crowder, II, M.D.,** **Hopkinsville**

Doctor Crowder served an unexpired term of one year as Vice-Speaker, and also serves as Parliamentarian for the Association. A general and thoracic surgeon, he is a 1961 graduate of the University of Tennessee. A Fellow in the American College of Surgeons, Doctor Crowder also sits on the Constitution and By-laws Committee of KMA and is a former Secretary of the KEMPAC Board. He is active in numerous civic organizations, including the Jaycees, Rotary Club, and the Chamber of Commerce.

SECRETARY-TREASURER **S. Randolph Scheen, M.D.,** **Louisville**

Doctor Scheen was KMA Secretary for eight years prior to his election as Secretary-Treasurer in 1975. A dermatologist, he is a graduate of the University of Louisville and University of Minnesota medical schools. Doctor Scheen serves the Association as a member of the Budget Committee and Judicial Council. He is a member of the American Academy of Dermatology and the Alumni Foundation of the Mayo Clinic, and is a regular participant on local television and radio programs, answering questions from the public on dermatology.

VICE-SPEAKER **OF THE HOUSE** **Peter C. Campbell, Jr., M.D.,** **Louisville**

An ophthalmologist, Doctor Campbell is Clinical Professor of Ophthalmology at the University of Louisville School of Medicine. He is a member of the American Academy of Ophthalmology and Otolaryngology, The Kentucky Academy of Eye Physicians and Surgeons, and is President of the medical staff at Methodist Evangelical Hospital in Louisville. Doctor Campbell is a 1961 graduate of the University of Louisville School of Medicine.

AMA Delegates

David B. Stevens, M.D., Lexington

Doctor Stevens is the Senior Delegate to the AMA from Kentucky, having served since 1965 as Delegate or Alternate Delegate. An orthopedic surgeon, Doctor Stevens is a Past President of the Fayette County Medical Society, and served eight years on the KMA Committee on Legislative Activities. A 1955 graduate of Northwestern University, Doctor Stevens is Assistant Clinical Professor of Surgery at the University of Kentucky.



Fred C. Rainey, M.D., Elizabethtown

Doctor Rainey was elected an AMA Delegate in 1974, having previously served as President of KMA, Alternate AMA Delegate, and Board Chairman of KEMPAC. A 1955 graduate of the University of Tennessee College of Medicine, Doctor Rainey is a family physician. He is a member of the AMA Council on Legislation, the American Medical Political Action Committee, the Kentucky Academy of Family Physicians, and the American Academy of Family Physicians.



Harold D. Haller, Sr., M.D., Louisville

Elected an AMA Delegate in 1976, Doctor Haller has been active on the Committee on Maternal and Child Health and the Committee on Health Care Costs. Doctor Haller graduated in 1963 from Bowman Gray Medical School, and has been in family practice since then. A charter member of the American Board of Family Practice, Doctor Haller also has served as President of the Kentucky Chapter of the American Academy of Family Physicians.



New Trustees

Thomas R. Taylor, M.D., Boston

Doctor Taylor now serves as the Fourth District Trustee. He is the Chief of General Surgery at the Hardin Memorial Hospital and has an active practice of general surgery in Elizabethtown. Doctor Taylor is the President of the Hardin County Medical Society and is a member of the Kentucky Peer Review Board.

Danny M. Clark, M.D., Somerset

Doctor Clark is serving as Trustee from the 12th District. He has a private practice of Obstetrics and Gynecology in Somerset. Doctor Clark is a member of the KMA Maternal and Child Health Committee. He is past president of the Pulaski County Medical Society and is on staff at Somerset City Hospital and Lake Cumberland Medical Center Hospital.

Charles G. Nichols, M.D., Pikeville

Doctor Nichols is serving as Trustee from the 14th District. A family practitioner, Doctor Nichols is Chief of Staff of the Methodist Hospital of Kentucky in Pikeville. He is past president of the Pike County Medical Society, a former Delegate to the KMA, and is a member of the AMA.

Journal Editors EDITOR

A. Evan Overstreet, M.D., Louisville

Doctor Overstreet had served on the Editorial Board for more than six years before becoming Editor of *The Journal* in September 1977. An internist, Doctor Overstreet is a 1955 graduate of the University of Louisville School of Medicine. He is a member of the American Society of Internal Medicine, the American College of Physicians, and the Transylvania Medical Society.

Paul C. Grider, Jr., M.D., Louisville

Doctor Grider has served as Scientific Editor of *The Journal* since 1975. An internist, Doctor Grider was President of the Louisville Society of Internists from 1976 to 1977 and also former President of the medical staff at Methodist Evangelical Hospital. Doctor Grider is a 1958 graduate of the University of Louisville School of Medicine.

Milton F. Miller, M.D., Louisville

Doctor Miller is Associate Clinical Professor of Medicine at the University of Louisville School of Medicine. An internist, Doctor Miller has served as Assistant Editor of *The Journal* since 1976, and has been on the Membership Committee of the Jefferson County Medical Society. He is a 1954 graduate of the University of Louisville.

James P. Moss, M.D., Louisville

Doctor Moss is serving his fourth year as Assistant Editor of *The Journal*. He is a surgeon and Assistant Clinical Professor in the Department of Surgery at the

University of Louisville School of Medicine. A diplomate of the American Board of Surgery, Doctor Moss is active in the Jefferson County Medical Society and KMA. He graduated from the University of Louisville School of Medicine in 1966.

G. Randolph Schrodt, M.D., Louisville

Doctor Schrodt has served as Assistant Editor since 1974. A 1954 graduate of the University of Louisville School of Medicine, Doctor Schrodt is a pathologist, and is Professor and Chairman of the Department of Pathology at the University of Louisville School of Medicine. He is a member of the American Society of Clinical Pathologists and the International Academy of Pathology.

Stephen Z. Smith, M.D., Louisville

Doctor Smith has served as Assistant Scientific Editor for *The Journal* since 1977. A dermatologist, Doctor Smith is a 1971 graduate of Johns Hopkins University School of Medicine. He is a member of the American Academy of Dermatology, the Kentucky Medical Association and the American Medical Association.

David L. Stewart, M.D., Louisville

Doctor Stewart, a former Editor of the Jefferson County Medical Society Bulletin, is in his fourth year as Assistant Editor of *The Journal*. A psychiatrist, Doctor Stewart graduated from the University of Louisville in 1946, is a member of the American Psychiatrist Association, and is Chairman of the KMA Committee on Physician's Health.

Other Editorial Positions

Regional Editors

- Allen E. Grimes, Jr., M.D., Lexington
- William W. Hall, M.D., Owensboro
- Thomas L. Heavern, Jr., M.D., Highland Heights
- Gordon L. Hyde, M.D., Lexington
- Martin J. Raff, M.D., Louisville

**Official Call
KMA Annual Meeting**

To the officers and members of the component county medical societies of the Kentucky Medical Association.

Meeting Place

The Annual Meeting of KMA will convene on Tuesday, Wednesday, and Thursday, September 22, 23, 24, at the Ramada Inn/Bluegrass Convention Center, Louisville. The first general session will be called to order at 8:30 a.m., Tuesday.

The House of Delegates

The first regular session of the House of Delegates will convene at 9 a.m., Monday, September 21, in the Julia Belle room of the Ramada Inn/Bluegrass Convention Center. The second regular business session will begin at 6 p.m., Wednesday, September 23, in the Julia Belle Room of the Ramada Inn/Bluegrass Convention Center.

Registration

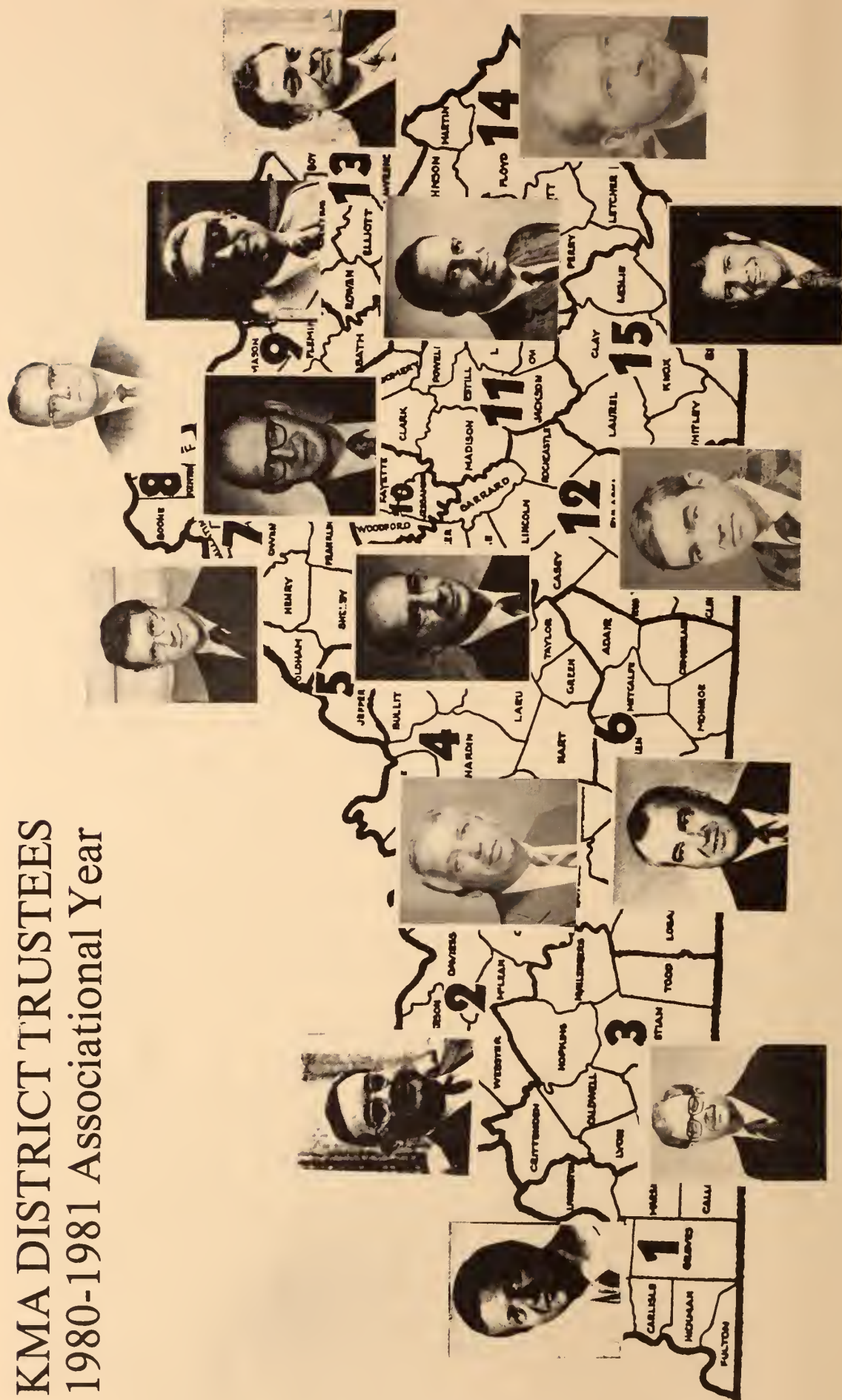
The registration desk will open for Delegates in the Bluegrass Convention Center lobby at 8 a.m., Monday, September 21 and at 5 p.m. Wednesday, September 23. General registration will also be held in the lobby of the Convention Center from 8 a.m. to 5 p.m., Tuesday and Wednesday, and 8 a.m. to 3:30 p.m. on Thursday.

Number To Use For Messages is 502-491-1929

A Message Center will be set up during the 1981 KMA Annual Meeting. The telephone number where you may be reached is 491-1929. This is a central hotel number through which all messages will be routed. Staffed at all times during the meeting, the Message Center will be located inside the lobby of the Bluegrass Convention Center. Paging of individual physicians is not possible due to the arrangement of facilities for the meeting. Only emergency calls will be posted on blackboards in the lobby of the Convention Center. All other mes-

sages will be kept on file at the Message Center until they are called for. It is requested that physicians check at the Message Center often for any messages. The phone number at the Headquarters Hotel, Ramada Inn, is (502) 491-4830. You may be reached during the meetings of the House of Delegates at that number. Your name will be posted on a blackboard at the front of the room when you receive a call. You are urged to make use of the Message Center. Be sure to leave these numbers at your home, office and hospital.

KMA DISTRICT TRUSTEES 1980-1981 Associational Year



1. WALLY O. MONTGOMERY
Paducah
2. R. J. PHILLIPS*
Owensboro
3. HENRY R. BELL
Elkton
4. THOMAS R. TAYLOR
Boston
5. WALTER S. COE
Louisville
6. EARL P. OLIVER
Scottsville
7. WILLIAM P. McELWAIN
Lawrenceburg
8. ROBERT E. SMITH
Covington
9. DON R. STEPHENS
Cynthiana
10. RICHARD F. HENCH*
Lexington
11. DWIGHT L. BLACKBURN†
Berea
12. DANNY M. CLARK
Somerset
13. HOWARD B. McWORTHER
Ashland
14. CHARLES G. NICHOLS
Pikeville
15. DONALD C. BARTON
Corbin

* Member, KMA Executive Committee
† Chairman, KMA Board of Trustees

KMA DELEGATES

ADAIR

ALLEN

Earl P. Oliver, Scottsville

ANDERSON

BALLARD

BARREN

Daryl P. Harvey, Glasgow

BATH

BELL

Kenneth Smith, Middlesboro

BOONE

John Schmitz, Florence

BOURBON

Alfredo V. Echiverri, Paris

BOYD

Jerald M. Ford, Ashland
Garner E. Robinson, Ashland

BOYLE

Elmer H. Jackson, Danville
David C. Liebschutz, Danville

BRACKEN

Milton Brindley, Augusta

BREATHITT

Robert E. Cornett, Jackson

BRECKINRIDGE

BULLITT

W. B. Hamilton, Shepherdsville

BUTLER

Richard T. C. Wan, Morgantown

CALLOWAY

Hal E. Houston, Murray
Robert Gary Marquardt, Murray

CAMPBELL-KENTON

Gordon W. Air, Crestview Hills
Joseph Bravo, Ft. Mitchell
Carl J. Brueggemann, Covington
Frank Garamy, Jr., Crescent Springs
Thomas L. Heavern, Jr., Highland Heights
William B. Monnig, Erlanger
Fredrick A. Stine, Highland Heights
Raymond J. Timmerman, Ft. Thomas

CARLISLE

CARROLL

Cecil Martin, Carrollton

CARTER

CASEY

Lewis E. Wesley, Liberty

CHRISTAIN

CLARK

CLAY

W. E. Becknell, Sr., Manchester

CLINTON

Floyd B. Hay, Albany

CRITTENDEN

CUMBERLAND

Joseph Skipworth, Burkesville

DAVISS

James Anderson, Owensboro
James Baumgarten, Owensboro
Al Joslin, Owensboro
John Sanders, Owensboro

EDMONDSON

ELLIOTT

Brown L. Adkins, Sandy Hook

ESTILL

FAYETTE

Joseph P. Bark, Lexington
Robert P. Belin, Lexington
M. Cary Blaydes, Lexington
Peter P. Bosomworth, Lexington
Glenn U. Dorroh, Lexington
Harold T. Faulconer, Lexington
John W. Garden, Lexington
Ward O. Griffen, Jr., Lexington
Allen E. Grimes, Jr., Lexington
Walter D. Harris, Lexington
Thomas M. Jarboe, Lexington
Van R. Jenkins, Lexington
Charles H. Nicholson, Lexington
Edwin J. Nighbert, Lexington
John D. Perrine, Lexington
Thomas K. Slabaugh, Lexington
John E. Trevey, Lexington
Gary R. Wallace, Lexington

FLEMING

Robert W. Fidler, Flemingsburg

FLOYD

Roger D. Akers, Wheelwright
Gangadhar Maddiwar, Martin

FRANKLIN

W. H. Rush, Jr., Frankfort
J. P. Broderson, Frankfort
Wm. P. McKee, Jr., Frankfort

FULTON

GALLATIN

GARRARD

GRANT

GRAVES

C. Douglas LeNeave, Mayfield
Henry Viles, Mayfield

GRAYSON

Victor F. Duvall, Clarkson

GREEN

William L. Shuffett, Greensburg

GREENUP

HANCOCK

HARDIN

HARLAN

Milo H. Schosser, Lynch
Paul M. Walstad, Harlan

HARRISON

Ardy C. Wright, Cynthiaana

HART

Jim Middleton, Munfordville

HENDERSON

Kenneth Eblen, Henderson
John McClellan, Henderson

HICKMAN

HOPKINS

W. R. Alexander, Madisonville
Richard K. Bachman, Madisonville
C. R. Dodds, Earlington
W. H. Klompus, Madisonville

JACKSON

JEFFERSON

Richard Allen, Louisville
Robert E. Arnold, Louisville
David Bizot, Louisville
Glenn W. Bryant, Louisville
John L. Bunting, Louisville
W. Cooper Buschemeyer, Louisville
Peter C. Campbell, Louisville
James Childers, Louisville
Eugene H. Conner, Louisville
Samuel L. Cooper, Louisville
Thomas C. Dedman, III, Louisville
Bob M. DeWeese, Louisville
Michael B. Flynn, Louisville
Daniel Garcia, Louisville
Lawrence G. Goldberg, Louisville
Laman A. Gray, Jr., Louisville
Larry Griffin, Louisville
John J. Guarnaschelli, Louisville
Lonnie W. Howerton, Louisville
John G. Hubbard, Louisville
Walter Hume, Jr., Louisville
Arthur T. Hurst, Louisville
Jerome Lacy, Louisville
Joseph C. Marshall, Jr., Louisville
Homer B. Martin, Louisville
Edward N. Maxwell, Louisville
James P. Moss, Louisville
Robert A. Noel, Louisville

Robert L. Nold, Louisville
Lynn L. Ogden, Louisville
C. Kenneth Peters, Louisville
Henry W. Post, Louisville
C. Ray Potts, Louisville
Judah L. Skolnick, Louisville
Charles C. Smith, Louisville
Donald P. Varga, Louisville
Thomas R. Watson, Louisville
Sam D. Weakley, Louisville
A. Franklin White, Louisville
William E. Yancey, Louisville
Walter Zukof, Louisville
Walter S. Wilson (Stu. Delegate-UL)

JESSAMINE

JOHNSON
Jerry D. Fraim, Paintsville

KNOTT

KNOX
Rufino Crisostomo, Barbourville

LARUE

LAUREL

LAWRENCE

LEE
Arnold Taulbee, Beattyville

LESLIE

LETCHER
Abubaker Tidal, Whitesburg

LEWIS

LINCOLN
Charles E. Crase, Stanford

LIVINGSTON
Stephen Burkhart, Salem

LOGAN
R. B. McEndre, Lewisburg

LYON
Steve B. Hiland, Eddyville

MADISON
John M. Johnstone, Madison
Michael Gordon, Madison

MAGOFFIN

MARION
Salem George, Lebanon

MARSHALL
Keith E. Ellis, Benton

MARTIN
Raymond D. Wells, Inez

MASON

McCRACKEN
C. Dale Brown, Paducah

Larry C. Franks, Paducah
John W. Kraus, Paducah
John D. Noonan, Paducah
Ben H. Taylor, Paducah

McCREARY
Jerald M. Burgess, Whitley City

McCLEAN

MEADE

MENIFEE

MERCER
Bacon Moore, Harrodsburg

METCALFE
L. P. Emberton, Edmonton

MONROE

MONTGOMERY

MORGAN
Alec Spencer, West Liberty

MUHLENBERG
William Miller, Greenville

NELSON
Michael C. Hess, Bardstown

NICHOLAS

OHIO
Robert E. Norsworthy, Hartford

OWEN
O. A. Cull, Owenton

OWSLEY
Mildred B. Gabbard, Booneville

PENDLETON
Robert L. McKenney, Falmouth

PENNYRILE

CALDWELL

LYON

TODD

TRIGG

PERRY
Dennis S. Sandlin, Hazard

PIKE

POWELL

PULASKI

ROBERTSON

ROCKCASTLE
George W. Griffith, Mt. Vernon

ROWAN
Ranjit Sinha, Morehead
Troy Burchett, Morehead

RUSSELL

SCOTT
R. Kendall Brown, Georgetown

SHELBY-HENRY-OLDHAM

SIMPSON

SPENCER
William K. Skaggs, Taylorsville

TAYLOR
TRIMBLE
Carl Cooper, Jr., Bedford

UNION

WARREN

WASHINGTON

WAYNE

WEBSTER
WHITLEY
R. D. Pitman, Williamsburg
Carmel Wallace, Corbin

WOLFE
P. F. Maddox, Campton

WOODFORD

Reference Committee Activity

Speaker Bennett L. Crowder, II, M.D., Hopkinsville, will assign all officers' and committees' reports and resolutions to one of six Reference Committees at the first meeting of the KMA House of Delegates at 9:00 a.m., Monday, September 21. **A brief session** for Reference Committee Chairmen will be held at **12:30 p.m., Monday**, in the Delta Queen Room of the Bluegrass Convention Center. Any KMA member wishing to testify on any resolution or report is urged to be present for the **Reference Committee meetings** which will be held at **2:00 p.m., Monday, September 21**, in the Convention Center. These open sessions will last one hour, in order for all who wish to speak to be heard. Following the open hearings, the Committees will go into executive sessions to study the reports, review the testimony, and write their reports to the House.

The Committees' recommendations will be presented at the final meeting of the House, Wednesday evening, September 23, in the Julia Bell Room of the Convention Center.

As Speaker of the House of Delegates, Doctor Crowder is in the process of finalizing appointments to the six Reference Committees, Credentials Committee, and Tellers Committee.

If your society has not yet submitted the name of your Delegate(s) to the Headquarters Office, you should do so immediately as only those names recorded in the office can be considered for appointment to one of these important committees.

A complete listing of members who will be serving on the six Reference Committees and the location of the Reference Committee meetings will be published in the September issue of the *KMA Journal*.

Anyone desiring names of Reference Committee members prior to the September issue being published should contact the Headquarters Office.

University of Louisville Reunions Scheduled for 1981

University of Louisville graduating classes ending in "1" and "6" will be celebrating their reunions in conjunction with the Kentucky Medical Association meeting this year. The following reunion chairmen have been selected:

1931	William Keller Louisville, Kentucky
1946 Spring	McHenry Brewer Louisville, Kentucky
1946 Winter	J. Herman Mahaffey Louisville, Kentucky
1951	Homer B. Martin Louisville, Kentucky
1956	William P. VonderHaar Louisville, Kentucky
1961	Marshall Mahan Louisville, Kentucky
1971	John G. Hubbard Louisville, Kentucky

If any graduates are planning a reunion or would like to act as chairman for reunion activities, please contact Miss Billie Clary, HSC Relations Office, 114 Carmi-

chael Building, University of Louisville, Louisville, Kentucky 40292, or call 502-588-5783

Medical Alumni Reception and Information Booth

A University Medical Alumni Reception will be held on Tuesday, September 22, from 5-7:00 p.m. at Plainview Swim and Racquet Club. All alumni, spouses and guests are invited to attend and meet the faculty of the School of Medicine.

The Alumni Information Booth will be open on Monday, September 21 through Thursday, September 24 to assist alumni in making contact with fellow classmates and for information concerning the University of Louisville School of Medicine.

AAFP Alumni Reception

A University of Louisville Alumni Reception will be held on Monday, September 21 at the Las Vegas Hilton Hotel in conjunction with the annual Family Practice meeting. All alumni, spouses and guests are invited to attend.

Election of Trustees and Alternate Trustees

The House of Delegates will elect five District Trustees and five Alternate Trustees at its second regular meeting, Wednesday, September 23. Nominations will be made by the Delegates from the electing Districts at a meeting following the first meeting of the House on Monday, September 21.

The Nominating Committee will report at the close of the first scientific session on Tuesday, September 22. Further nominations may be made from the floor at the final meeting of the House on Wednesday evening, September 23. All nominations are considered and acted upon by the Delegates at this final meeting.

Districts electing Trustees for three-year terms are: **FIFTH DISTRICT** (incumbent, Walter S. Coe, M.D., Louisville); **SIXTH DISTRICT** (incumbent, Earl P. Oliver, M.D., Scottsville); **EIGHTH DISTRICT** (incumbent, Robert E. Smith, M.D., Covington); **ELEVENTH DISTRICT** (incumbent, Dwight L. Blackburn, M.D., Berea); and **FIFTEENTH DISTRICT** (incumbent, Donald C. Barton, M.D.).

Districts electing Alternate Trustees are the same as those electing Trustees. Incumbents are: Glenn W. Bryant, M.D., Louisville (5th); L. Martin Wilson, M.D., Bowling Green (6th); William R. Yates, M.D., Hebron (8th); Don E. Cloys, M.D., Richmond (11th); and Emanuel H. Rader, M.D., Pineville (15th).

Trustees in the 5th, 8th, and 15th Districts are eligible for re-election, while Trustees in the 6th and 11th Districts have served two full terms and are not eligible for re-election.

Alternate Trustees in the 8th, 11th, and 15th Districts are eligible for re-election; the Alternate Trustees in the 5th and 6th Districts are not eligible.

Nominating Committee to Meet Monday, September 21

The KMA Nominating Committee will hold an open meeting at the close of the first meeting of the House of Delegates, Monday, September 21, in the Julia Belle Room of the Bluegrass Convention Center. Any KMA member may confer with the Committee during this meeting.

The report of the Nominating Committee will be posted in the general assembly hall at the conclusion of the first general session, Tuesday morning, September 22.

Nominations may be made from the floor during the second meeting of the House of Delegates, Wednesday evening, September 23. The House will vote on the nominees at the close of this session.

Members of the Committee are as follows: Walter L. Cawood, M.D., Ashland, Chairman; Charles G. Nichols, M.D., Pikeville; Charles H. Nicholson, M.D., Lexington; Ben H. Taylor, M.D., Paducah; and William E. Yancey, M.D., Louisville.

House to Elect New Officers During Annual Meeting

KMA Officers for the 1981-82 Associational year will be elected by the House of Delegates at the close of its final meeting, Wednesday evening, September 23. Officers to be elected from the state at large are as follows:

Office	Term
President-Elect	One Year
Vice President	One Year
Secretary-Treasurer	Three Years
*S. Randolph Scheen, M.D.	
Delegate to the AMA	Two Years
*David B. Stevens, M.D.	
Delegate to the AMA	Two Years
*Fred C. Rainey, M.D.	
Alternate Delegate to the AMA	Two Years
*Lee C. Hess, M.D.	
Alternate Delegate to the AMA	Two Years
*Wally O. Montgomery, M.D.	
*Incumbent	

The AMA Delegates and Alternates are to be elected for two-year terms from January 1, 1982, to December 31, 1983.

A Bylaw change is being proposed to delete limitation on number of terms for service as Secretary-Treasurer.



Annual Meeting Special Features

SCIENTIFIC SESSIONS are scheduled for September 22, 23, and 24 at the Ramada Inn/Bluegrass Convention Center, Louisville. The theme for the 1981 scientific session is "Problems in the Human Life Cycle-Cardiovascular Disorders." Both the presentations and discussion periods will contribute to the continuing medical education of Kentucky's physicians.

TWENTY-ONE SPECIALTY GROUPS will hold meetings on the afternoon of September 22 and 24. Beginning at 1:30 p.m., the meetings will be held in Ramada Inn/Bluegrass Convention Center with the exception of the Kentucky Dermatological Society, which will meet at Norton-Children's Hospital, Louisville. Individual programs of the specialty societies are listed in this issue. No general sessions are scheduled during the specialty group meetings and all KMA members are invited to attend any specialty meetings.

SCIENTIFIC AND TECHNICAL EXHIBITS will display new medical products, services and techniques at the Bluegrass Convention Center during the 1981 Annual Meeting. Members and guests are urged to take the opportunity to view products of interest at the 30-minute intermissions scheduled during each general and specialty session.

THE KMA HOUSE OF DELEGATES will meet twice during the Annual Meeting. The first session of the House will be held at 9 a.m., Monday, September 21, in the Julia Belle room of the Ramada Inn/Bluegrass Convention Center. The final session will be held Wednesday, September 23, at 6 p.m., in the Julia Belle room also. Officers for the 1981-82 Associational year will be elected at the second session.

ALUMNI REUNIONS will be held again this year for classes of the University of Louisville School of Medicine. Information regarding these reunions may be obtained by contacting the chairman of the specific year or may be picked up at the alumni booth at the Annual Meeting.

THE PRESIDENT'S LUNCHEON will feature Kentucky's Lieutenant Governor Martha Layne Collins. Held at 11:30 a.m., Wednesday, September 23, in the Julia Belle room of the Bluegrass Convention Center. The Luncheon also will include the presentation of KMA awards and the installation of the 1981-82 KMA President, Ballard W. Cassady, M.D.

1981 Annual Meeting To Honor Past President Letcher



The 1981 Annual Meeting of the Kentucky Medical Association will be officially titled "The J.H. Letcher Memorial Meeting" in remembrance of the 1901 President of the Association.

The tradition of honoring a past president of KMA and other distinguished physicians originated at the 1935 Annual Meeting.

Eugene H. Conner, M.D., Louisville, KMA Historian, has written a biography on Doctor Letcher for the Annual Meeting program booklet to be distributed during the meeting in Louisville, September 21-24.

September 21, 1981 is the date of the 19th Kentucky Educational Medical Political Action Committee (KEMPAC) Seminar-Banquet.

The event will be held at the Bluegrass Convention Center - Ramada Inn, Louisville. The reception starts at 6:00 p.m. EDT, with dinner at 7:00 p.m. and the program to follow.

A panel discussion — Governors' Prospective of Health Care Funding in the Eighties will be moderated by Al Smith, with former governors as participants. Mr. Smith serves as Federal Co-Chairman of the Appalachian Regional Commission.

Get your tickets early. (\$20.00). They are available from any KEMPAC Board member or from the KEMPAC Headquarters Office — 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.



19th KEMPAC Seminar-Banquet — \$20.00 per person.

NAME _____

ADDRESS _____

CITY _____

AMOUNT ENCLOSED \$ _____ # OF TICKETS _____

1981 Annual Meeting Program Summary

Kentucky Medical Association
September 20, 21, 22, 23, and 24
Bluegrass Convention Center/Ramada Inn
Louisville

SUNDAY, SEPTEMBER 20

9:00 a.m.	KMA Executive Committee Meeting	Mississippi Queen Room, Convention Center
12:30 p.m.	KMA Board of Trustees Meeting and Dinner	Mississippi Queen Room, Convention Center

MONDAY, SEPTEMBER 21

9:00 a.m.	First Meeting, KMA House of Delegates	Julia Belle Room, Convention Center
12:30 p.m.	Luncheon, Reference Committee Chairmen	Delta Queen Room, Convention Center
2:00 p.m.	Reference Committee Meetings	Cincinnati Room, Island Queen-Idlewild Rooms, Majestic-New Orleans Rooms, Grand Republic Room, Mississippi Queen Room, Natchez Room, Convention Center
6:00 p.m.	KEMPAC Reception, Banquet and Seminar	Julia Belle Room, Convention Center

TUESDAY, SEPTEMBER 22

8:00 a.m.	Registration	Lobby, Convention Center
8:20 a.m.	Opening Ceremonies	Scientific Assembly Hall, Convention Center
9:00 a.m.	First Scientific Session	Scientific Assembly Hall, Convention Center
12:00 noon	Luncheon Meeting Executive Committee and Reference Committee Chairmen	Ramada Inn
1:30 p.m.	Specialty Group Sessions, Convention Center (Twelve Specialty Groups will meet simultaneously at this time. Their programs begin on page 547)	
5:30 p.m.	Reception Honoring Ballard W. Cassady, M.D. and Mrs. John D. Noonan	Poolside, Ramada Inn

WEDNESDAY, SEPTEMBER 23

8:30 a.m.	Second Scientific Session	Scientific Assembly Hall, Convention Center
11:50 a.m.	President's Luncheon	Julia Belle Room, Convention Center
2:00 p.m.	Third Scientific Session	Scientific Assembly Hall, Convention Center
3:00 p.m.	Board of Trustees Meeting and Dinner (5 p.m.)	Mississippi Queen Room, Convention Center
6:00 p.m.	Second Meeting, KMA House of Delegates	Julia Belle Room, Convention Center

THURSDAY, SEPTEMBER 24

8:25 a.m.	Fourth Scientific Session	Scientific Assembly Hall, Convention Center
12:00 noon	Luncheon Meeting, Board of Trustees	Kentucky Room, Ramada Inn
1:30 p.m.	Specialty Group Sessions, Convention Center (Nine Specialty Groups will meet simultaneously at this time. Their programs begin on page 551)	

A 30-minute intermission has been scheduled during each morning and afternoon Scientific Session for visiting Scientific and Technical Exhibits

Problems in the Human Life Cycle



**CARDIOVASCULAR
DISORDERS**

KMA Annual Meeting, September 22, 23, 24, 1981

The Kentucky Medical Association SCIENTIFIC PROGRAM J. H. Letcher Memorial Meeting Bluegrass Convention Center, Louisville

TUESDAY, SEPTEMBER 22

MORNING SESSION

General Session

Frank R. Pitzer, M.D., Hopkinsville
KMA President, Presiding

- Theme: "Birth, Infancy, Childhood"
- 8:25 a.m. Movie
- 9:00 a.m. "Hypertensive Disease in Pregnancy: The Treatment of Two Patients at the Same Time"
Selman I. Welt, M.D., Johnson City, Tenn.
- 9:20 a.m. "The Epidemiology of Childhood Hypertension"
Jennifer M. H. Loggie, M.B., F.R.C.P., Cincinnati, Ohio
- 9:40 a.m. "Anesthesia and Ischemic Heart Disease—Newer Concepts"
John Waller, M.D., Atlanta, Ga.
- 10:00 a.m. Intermission to Visit Exhibits
- 10:30 a.m. "The Changing Role of Palliative and Corrective Surgery in the Treatment of Congenital Heart Disease in the Infant"
Constantine Mavroudis, M.D., Sausalito, Ca.
- 10:50 a.m. "Diagnosis and Treatment of Cerebral Vascular Disease in Childhood & Adolescence"
John Shillito, M.D., Boston, Mass.
- 11:10 a.m. "Age Related Dysfunctions of the Bladder"
Richard Turner-Warwick, London, England
- 11:30 a.m. "Diagnosis and Treatment of Acute Aortic Dissections"
Randall G. Griepp, M.D., Brooklyn, N.Y.

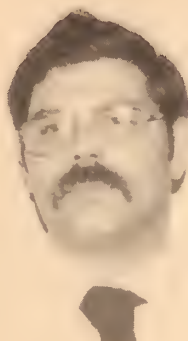
AFTERNOON SESSION

Specialty Group Meetings

Kentucky Society of Anesthesiology
Natchez Room

- 1:30 p.m. "Hemodynamics in Anesthesia: Monitoring and Management"
John L. Waller, M.D., Atlanta, Ga.
- 2:30 p.m. "Accidents in Anesthesia: Prevention, Management, and Epidemiology"
Benjamin M. Rigor, M.D., Louisville
- 3:15 p.m. Intermission to Visit Exhibits
- 3:45 p.m. "Forane—A New Anesthetic"
Brian D. Robins, M.D., Cincinnati, Ohio
- 4:30 p.m. Business Meeting

SELMAN I. WELT, M.D.
Johnson City, Tennessee



Associate Professor of Obstetrics and Gynecology, Quillen-Dishner School of Medicine, East Tennessee State University, Johnson City, Tennessee. M.D., 1972, University of North Carolina School of Medicine. Fellow, The American College of Obstetrics & Gynecology; and the American Institute of Ultrasound in Medicine. Member, the Bayard Carter Society; Southern Perinatal Association; The Teratology Society and The American Society of Human Genetics. Board eligible in Maternal-Fetal Medicine, American Board of Obstetrics & Gynecology. Author of numerous publications.

JENNIFER M. H. LOGGIE, M.B., B.Ch.
Cincinnati, Ohio

Professor of Pediatrics, University of Cincinnati, College of Medicine. Attending Pediatrician, Cincinnati General Hospital and Cincinnati Children's Hospital Medical Center. Executive Medical Officer, Cincinnati Drug and Poison Information Center. Director, Clinical Pharmacology, Children's Hospital Research Foundation. M.B., B.Ch., 1959, University of the Witwatersand, Johannesburg, South Africa. Member, National Heart, Lung and Blood Institute Advisory Committee for Atherosclerosis; Board of Trustees, Southwestern American Heart Association. Chairman, Southwestern American Heart Association Task Force on Hypertension. Pediatric National Representative, U.S. Pharmacopeia General Committee of Revision.



JOHN L. WALLER, M.D.
Atlanta, Georgia

Associate Professor of Anesthesiology, Emory University School of Medicine, Atlanta, Georgia. Attending Anesthesiologist, Division of Cardiothoracic Anesthesia, Emory University Clinic. M.D., 1971, Loma Linda University, Loma Linda, California. Consulting Anesthesiologist, Emory University Hospital, Henrietta Eggleston Children's Hospital, Henry Grady Memorial Hospital. Member, International Anesthesia Research Society; Georgia Society of Anesthesiologists; AMA; Georgia Medical Association; South Atlantic Cardiovascular Society and Society of Cardiovascular Anesthesiologists.



CONSTANTINE MAVROUDIS, M.D.
San Francisco, California



Cardio-Thoracic Fellow, Department of Surgery, University of California, San Francisco. Assistant Professor of Surgery, University of Louisville. M.D., 1973, University of Virginia, School of Medicine, Charlottesville. Member, American College of Surgeons, Candidate Group; Association for Academic Surgery; Naffziger Surgical Society. Finalist, Deborah Heart & Lung Foundation National Research Award 1979; Finalist, San Francisco Surgical Society Research Award, 1979. Diplomate, American Board of Surgery, 1980. Author of numerous publications.

R. T. TURNER-WARWICK, B.Sc., D.M., F.R.C.P.
London, England

Council of Royal College of Surgeons; Surgeon in Charge, Department of Urology, Middlesex Hospital; Senior Lecturer, London University, Institute of Urology; Senior Consultant Urologist, St. Peter's Hospitals Group; Honorary Consultant Urologist, Hospital of St. John & St. Elizabeth, Royal Prince Alfred Hospital, Sydney, Australia & the Royal National Orthopaedic Hospital. Bachelor of Medicine, 1949, Oxford. Fellow, British Association of Urological Surgeons and the Association of Surgeons of Great Britain & Ireland. Member, American Association of G. U. Surgeons; Society of Pelvic Surgeons; International Society of Urology; European Society of Urology & Section of Urology, Royal Society of Medicine.



Kentucky Chapter
American College of Chest Physicians
Julia Belle Foyer

- 1:30 p.m. "Aneurysms of the Thoracic Thoraco-abdominal Aorta"
Randall B. Griep, M.D., Brooklyn, N.Y.
- 2:15 p.m. "The Modern Treatment of Tuberculosis"
Robert G. Loudon, M.D., Cincinnati, Ohio
- 3:00 p.m. Intermission to Visit Exhibits
- 3:30 p.m. "New Knowledge in Cardiology: From Bedside Tests to Laboratory"
Morton Tavel, M.D., Indianapolis, Ind.
- 4:15 p.m. Open Panel; "Ask the Experts"

Kentucky Chapter
American College of Emergency Physicians
Eclipse Room

- 1:30 p.m. "Legislative Process in Kentucky as it Affects Emergency Medicine"
Carl Cooper, Jr., M.D., Bedford
- 2:00 p.m. "HSAs—Their Operation and Implications"
Tony Goetz, Lexington
- 2:30 p.m. Intermission to Visit Exhibits
- 3:00 p.m. "Operations of Third Party Payers—Now and the Future"
B. Frank Radmacher, M.D., Louisville
- 3:30 p.m. "How We Can Influence Emergency Medicine and EMS From Local, State and National Levels"
G. Richard Braen, M.D., Lexington

Kentucky Neurosurgical Society
Delta Queen Room
To Be Announced

Kentucky Section American College of
Obstetricians and Gynecologists
Julia Belle Room

- 1:30 p.m. "Intrauterine Death"
Bob Stopher, M.D., Louisville
- 2:00 p.m. "Iatrogenic Infertility"
Joseph S. Sanfilippo, M.D., Louisville
- 2:30 p.m. Intermission to Visit Exhibits
- 3:00 p.m. To Be Announced
Selman I. Welt, M.D., Johnson City, Tenn.
- 3:45 p.m. Business Meeting

Kentucky Orthopaedic Society
Mississippi Queen Room
To Be Announced

Kentucky Society of Pathologists
Cincinnati Room

- 1:30 p.m. "The Pathology of Valvular Disease"
Jessie E. Edwards, M.D., St. Paul, Minn.
- 2:30 p.m. Intermission to Visit Exhibits
- 3:00 p.m. "Effects on Cardiopulmonary System of Remote Malignant Tumors"
Jessie E. Edwards, M.D., St. Paul, Minn.

Kentucky Chapter
American Academy of Pediatrics
Grand Republic Room

- 1:30 p.m. Symposium on Mandatory Automobile Child Restraints
- 2:30 p.m. Intermission to Visit Exhibits

- 3:00 p.m. "Critical Analysis of the Medical Literature"
Edward A. Mortimer, M.D., Cleveland, Ohio
- 3:45 p.m. "Diagnosis and Treatment of Childhood Hypertension"
Jennifer M. H. Loggie, M.D., B.Ch., Cincinnati, Ohio
- 4:45 p.m. Business Meeting

**Kentucky Society for
Plastic and Reconstructive Surgery
Majestic-New Orleans Room**

- 1:30 p.m. "Clinical Advances in Microvascular Free-Tissue Transfer"
Robert D. Acland, M.D., Louisville
- 1:45 p.m. Discussion of Doctor Acland's Paper
- 1:50 p.m. "Is Early Tangential Excision and Grafting the Preferred Method for Management of the Burn Wound?"
Allen Moberg, M.D., Louisville
- 2:00 p.m. "Burn Injuries Due to Electricity"
Forrest Judson, M.D., Louisville
- 2:10 p.m. Discussion of Papers #2 & #3
- 2:15 p.m. Title to be Announced
John Lanzalotti, M.D., Lexington
- 2:25 p.m. Title to be Announced
John Oliphant, M.D., Lexington
- 2:35 p.m. Discussion of Papers #4 & #5
- 2:40 p.m. Intermission to Visit Exhibits
- 3:10 p.m. "Prophylactic Mastectomy with Immediate Reconstruction for the High-Risk Breast Cancer Patient"
Leonard R. Rubin, M.D., Mineola, N.Y.
- 4:00 p.m. Discussion of Doctor Rubin's Paper
- 4:10 p.m. "Breast Reduction with Inferior Breast Pedicle"
Edgar A. Lopez-Suescum, M.D., Louisville
- 4:30 p.m. Discussion of Doctor Lopez's Paper
- 4:45 p.m. Business Meeting

**Kentucky Psychiatric Association
Ramada Inn**

- 2:00 p.m. "Psychiatry's Role in Developmental Disabilities: Directives for the Future"
Cyrus Adams, M.D., Louisville
- 2:30 p.m. "Adolescent Pregnancy"
Janet Jones, M.D., Lexington
- 3:00 p.m. Intermission to Visit Exhibits
- 3:30 p.m. "Spouse Abuse"
Elissa Benedek, M.D., Ann Arbor, Mich.
- 4:00 p.m. Business Meeting

**Kentucky Chapter
American College of Surgeons
General Sessions Hall
To Be Announced**

**Kentucky Urological Association
Island Queen-Idlewild Rooms**

- 1:30 p.m. "Overview of Urethral Stricture Surgery"
Mr. Richard Turner-Warwick, London, N. W. 1. England
- 2:30 p.m. Intermission to Visit Exhibits
- 3:00 p.m. "Pyelogram Presentation, and Discussion of Interesting and Difficult Genitourinary Tract Problems"
Mr. Richard Turner-Warwick, London, N. W. 1. England

**RANDALL B. GRIEPP, M.D.
Brooklyn, New York**



Professor of Surgery, Chief, Division of Cardio-thoracic Surgery, State University of New York, Downstate Medical Center, Brooklyn, N.Y. Chief, Cardio-thoracic Surgery, Kings County Hospital Center, Brooklyn, N.Y. Consultant in Surgery, Brooklyn Hospital, Veterans Administration, Staten Island Hospital, Lutheran Medical Center, M.D., 1967, Stanford University Medical School, Stanford, California. Member, American Association for the Advancement of Science; American Association for Thoracic Surgery; American College of Surgeons; Society of University Surgeons; New York Cardiological Society. Author of numerous scientific publications.

**ELISSA P. BENEDEK, M.D.
Ann Arbor, Michigan**

Clinical Professor, Department of Psychiatry, University of Michigan, Ann Arbor. M.D., 1960, University of Michigan. Examiner, American Board of Psychiatry & Neurology, Adult & Child Psychiatry; Editorial Board *American Journal of American Academy of Child Psychiatry*; Editor, Family Law Department, *American Journal of Family Therapy*. Member, Board of Directors, Group for the Advancement of Psychiatry; American Academy of Child Psychiatry; Committee on Special Interest Groups, Michigan Society of Neurology & Psychiatry; American Psychiatric Association, Board Liaison to American Academy of Child Psychiatry.



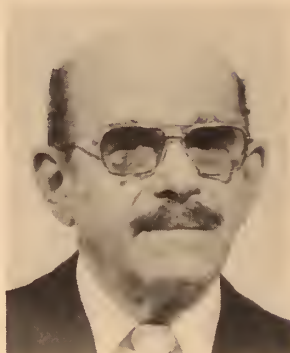
**WILLIAM R. MURRAY, M.D.
San Francisco, California**



Chairman, Department of Orthopaedic Surgery, University of California, San Francisco. Chief of Orthopaedic Inpatient Service, University of California Hospitals. M.D., 1952, McGill University School of Medicine, Montreal, Quebec, Canada. Member, California Medical Association; AMA; American Academy of Orthopaedic Surgeons, Chairman, Committee on Arthritis; American Orthopaedic Association, Membership Committee; The Arthritis Foundation, Executive Committee; College of Physicians and Surgeons of Canada.

LEONARD R. RUBIN, M.D.
Mineola, New York

Clinical Professor, Plastic Surgery, Stoney Brook School of Medicine, Stoney Brook, N.Y. Director, Plastic and Maxillofacial Surgery and the Burn Center, East Meadow, N.Y. Attending Plastic Surgeon, North Shore University Hospital, Manhasset, N.Y., Nassau Hospital, Mineola, N.Y., Mercy Hospital, Rockville Center, N.Y., Community Hospital, Glen Cove, N.Y. Diplomate, American Board of Plastic Surgery, 1948. Member, AMA; Nassau County Medical Society, American Association of Plastic and Reconstructive Surgeons; American Society of Maxillofacial Surgeons; American Burn Association. Author of numerous scientific publications.



JESSE E. EDWARDS, M.D.
St. Paul, Minnesota



Professor of Pathology, Graduate School, University of Minnesota, Minneapolis. Director, Program of Research & Training in Cardiovascular Pathology, United Hospitals—Miller Division. Consultant, Department of Pathology, St. Paul-Ramsey Hospital, St. Paul, Minnesota. Consultant, Department of Medicine, VA Hospital, Minneapolis, Minnesota. M.D., 1935, Tufts College Medical School, Boston, Massachusetts. Member, Editorial Board, *American Heart Journal & Geriatrics*. International Academy of Pathology, President 1955-56; American Heart Association, President 1967-68; American Society of Clinical Pathologists.

RAYMOND G. SLAVIN, M.D.
St. Louis, Missouri

Professor of Internal Medicine & Microbiology and Director-Division of Allergy & Immunology, St. Louis University Medical Center. M.D., 1956, St. Louis University School of Medicine. Attending Physician, St. Louis University Hospital; Attending Physician, John Cochran Veterans Administration Hospital, St. Louis; Director of Allergy Clinic. Member, American Academy of Allergy, Historian; National Institute of Health; Committee to the FDA, Joint Council of Socioeconomics of Allergy; Editor, Allergy & Immunology Section, *Tice Practice of Medicine*; Editorial Board, *Journal Club of Allergy*.



WEDNESDAY, SEPTEMBER 23
MORNING SESSION
General Session

Charles B. Spalding, M.D., Bardstown
KMA Vice-President, Presiding

- Theme: "Adolescence to Adulthood"
8:40 a.m. "Breast Development in the Female Adolescent"
Elissa P. Benedek, M.D., Ann Arbor, MI
9:00 a.m. "Emergency Management of Acute Myocardial Infarction"
Kenneth J. Boniface, M.D., Cincinnati, Ohio
9:20 a.m. "Technology, Total Hip and Tithing: What Price Progress"
William R. Murray, M.D., San Francisco, Calif.
9:40 a.m. "Reanimation of the Paralyzed Face"
Leonard R. Rubin, M.D., Mineola, N.Y.
10:00 a.m. Intermission to Visit Exhibits
10:30 a.m. "The Floppy Mitral Valve"
Jessie E. Edwards, M.D., St. Paul, MN
10:50 a.m. "Treatment of Drug-Induced Anaphylactic Shock"
Raymond G. Slavin, M.D., St. Louis, Mo.
11:10 a.m. "Transluminal Angioplasty"
Donald E. Schwartz, M.D., Indianapolis, Ind.
11:30 a.m. "Cardiovascular Health Programs of the Adult—Preventable in Childhood—Fact and Fantasy"
Edward A. Mortimer, M.D., Cleveland, Ohio

PRESIDENT'S LUNCHEON

Julia Belle Room
Bluegrass Convention Center
11:50 a.m.

Frank R. Pitzer, M.D., Hopkinsville
KMA President, Presiding

Invocation

Recognition

Awards Presentation

S. Randolph Scheen, M.D., Louisville
Chairman, KMA Awards Committee

Luncheon Speaker

Lieutenant Governor Martha Layne Collins

Installation of the New KMA President

AFTERNOON SESSION
General Session

James A. Baumgarten, Owensboro
Chairman, KMA Scientific Program Committee,
Presiding

- Theme: "The Coronary Care Unit"
2:15 p.m. "Cardiovascular Care Unit Design and Operation in Small, Medium and Large Hospitals"
Glenn O. Turner, M.D., Springfield, Mo.

- 3:00 p.m. Intermission to Visit Exhibits
 3:30 p.m. "Complications of Acute Myocardial Infarctions"
Raphael Smith, M.D., Nashville, Tenn.
 4:15 p.m. "Evaluation Results of Coronary Care Unit and the
 Future of Coronary Care"
Gerald F. Fletcher, M.D., Atlanta, Ga.

THURSDAY, SEPTEMBER 24

MORNING SESSION

General Session

Earl P. Oliver, M.D., Scottsville

Vice Chairman, KMA Board of Trustees, Presiding

- Theme: "The Aging Patient"
 8:35 a.m. Movie
 9:00 a.m. "Rehabilitation of the Patient with Cardiovascular
 Problems for Return to Work"
Henry S. Miller, M.D., Winston-Salem, N.C.
 9:20 a.m. "Stroke Update: Advances and Treatment"
Thomas G. Brott, M.D., Cincinnati, Ohio
 9:40 a.m. "Management of Aging Problems of the Eye"
Alston Callahan, M.D., Birmingham, Ala.
 10:00 a.m. Intermission to Visit Exhibits
 10:30 a.m. "Treatment of Mild Hypertension"
Marc A. Pohl, M.D., Cleveland, Ohio
 10:50 a.m. "The Role of Diagnostic and Therapeutic Gastroin-
 testinal Endoscopy in Clinical Medicine"
Fred E. Silverstein, M.D., Seattle, Wash.
 11:10 a.m. "Chronic Venous Insufficiency and Stasis Dermati-
 tis"
R. S. Rogers, III, M.D., Rochester, Minn.
 11:30 a.m. "Current Management of Epistaxis"
William E. Davis, M.D., Columbia, Mo.

AFTERNOON SESSION

Specialty Group Meetings

**Kentucky Society of
 Allergy and Clinical Immunology**
 Eclipse Room

- 1:30 p.m. "Newer Developments in the Immunology of Breast
 Milk"
Erwin A. Jones, Jr., M.D., Lexington
 1:45 p.m. "The Recalcitrant Asthmatic—Three Underlying
 Medical Conditions: 1) Gastroesophageal Reflux, 2)
 Allergic Aspergillosis, 3) Chronic Sinusitis"
Raymond G. Slavin, M.D., St. Louis, Mo.
 2:45 p.m. Intermission to Visit Exhibits
 3:15 p.m. "Effects of Passive and Active Smoking on
 Asthmatics"
Raymond G. Slavin, M.D., St. Louis, Mo.
 3:45 p.m. "Bronchoprovocation Studies in Mold Asthma"
Clay Dorminey, M.D., Madisonville
 4:00 p.m. Business Meeting

Kentucky Dermatological Society

Norton-Children's Hospital

- 2:00 p.m. Clinical Cases
 3:30 p.m. Discussion of Cases—Auditorium

Kentucky ENT Society

Cincinnati Room

- 1:30 p.m. "Neck Masses—Guidelines and Controversies"
Khaled Kayali, M.D., Louisville
 2:00 p.m. "Z-plasties in Facial Cosmetic Surgery"
William E. Davis, M.D., Columbia, Mo.

DONALD E. SCHWARTEN, M.D.

Indianapolis, Indiana

Director of Cardiovascular Lab-
 oratories, Department of Radiology,
 St. Vincent Hospital and
 Health Care Center, Indianapolis,
 Indiana. M.D., 1966, Northwest-
 ern University School of Medi-
 cine. Former Assistant Professor,
 Department of Radiology (Cardi-
 ac), Bowman-Gray School of
 Medicine, Winston-Salem, North
 Carolina. Member, American Col-
 lege of Radiology. Author of nu-
 merous scientific publications.

No Picture Available

EDWARD A. MORTIMER, JR., M.D.

Cleveland, Ohio

Director, Department of Pedi-
 atrics, Cleveland Metropolitan
 General Hospital, Cleveland,
 Ohio. Professor and Chairman, De-
 partment of Epidemiology and
 Community Health and Professor
 of Pediatrics, Case Western Re-
 serve University School of Medi-
 cine, Cleveland, Ohio. M.D.,
 1947, Northwestern University
 Medical School, Chicago, Illinois.
 Member, American Academy of
 Pediatrics, Chairman; Armed
 Forces Epidemiologic Board;
 American Pediatric Society;
 American Public Health Associa-
 tion; American Epidemiological
 Society; Midwest Society for
 Pediatric Research.



HENRY S. MILLER, JR., M.D.

Winston-Salem, North Carolina



Professor of Medicine, Bowman
 Gray School of Medicine, Win-
 ston-Salem, North Carolina. Asso-
 ciate Medical Director, Acute
 Rehabilitation Unit, North Caro-
 lina Baptist Hospital. M.D., 1954,
 Bowman Gray School of Medicine
 of Wake Forest College, Winston-
 Salem, N.C. Member, American
 Heart Association. Vice Presi-
 dent, 1978-79; North Carolina
 Medical Society; Forsyth County
 Heart Association, Past Presi-
 dent; American College of Sports,
 President Elect 1979-80; Medical
 Director, Adult Fitness Program,
 Human Performance Laboratory
 at Wake Forest University.

THOMAS G. BROTT, M.D.

Cincinnati, Ohio

Assistant Professor of Neurology,
 University of Cincinnati, College
 of Medicine, Group practice of
 Neurology and Clinical Psychol-
 ogy, Cincinnati, Ohio. M.D., 1974,
 University of Chicago, Pritzker
 School of Medicine. Member,
 American Academy of Neurology;
 Certified in Neurology, American
 Board of Psychiatry and Neurology.
 Course Director, "Behavioral
 Neurology." University of Cin-
 cinnati, College of Medicine.



ALSTON CALLAHAN, M.D.
Birmingham, Alabama

President of The Eye Foundation, Inc., Birmingham, Ala. Private Practice in Ophthalmology, Birmingham, Ala. since 1946. M.D., 1933, Tulane Medical School, New Orleans, La. Member, Professional Association; American College of Surgeons; American Academy of Ophthalmology; Southern Medical Association. Director & Producer of Medical Motion Pictures of Eye Surgery; Author of numerous scientific publications.



MARC A. POHL, M.D.
Cleveland, Ohio

Program Director, Department of Hypertension and Nephrology, Cleveland Clinic Foundation, Cleveland, OH. Staff Physician, Cleveland Clinic Foundation. Head, Home Hemodialysis Training Program, Cleveland Clinic. M.D., 1966, Case Western Reserve University School of Medicine, Cleveland. Member, American Society of Nephrology; Renal Physicians Association; National Kidney Foundation; AMA; Cleveland Academy of Medicine.

No Picture Available

FRED E. SILVERSTEIN, M.D.
Seattle, Washington

Director, University of Washington Hospital, Gastrointestinal Endoscopy Service, Seattle, Wash. Attending Staff, University of Washington Hospital, Seattle. M.D., 1967, Columbia University College of Physicians and Surgeons, New York, N.Y. Member, American Society for Gastrointestinal Endoscopy Research Committee, 1976-1979; Veteran's Administration Merit Review Board for Gastroenterology 1977-1980. Author of numerous scientific publications.



ROY S. ROGERS, III, M.D.
Rochester, Minnesota



Consultant in Dermatology, Mayo Clinic; Associate Professor of Dermatology, Mayo Medical School, Rochester, Minn. M.D., 1966, Ohio State University College of Medicine, Columbus, OH. Member, Society for Investigative Dermatology; American Academy of Dermatology; Dermatology Foundation, American Federation for Clinical Research; American Dermatologic Society for Allergy and Immunology. Editorial Consultant, MEDCOM, Inc., 1972; Editorial Board, *Minnesota Medicine*, 1974.

- 2:30 p.m. Intermission to Visit Exhibits
3:00 p.m. "Etiologies and Management of Sudden Hearing Loss"
Serge Martinez, M.D., Louisville
3:30 p.m. "Hearing Aids for the Elderly: The Problems, Procedures and Innovations"
David R. Cunningham, Ph.D., Louisville

**Kentucky Academy of
Eye Physicians and Surgeons**
Mississippi Queen Room

- 1:30 p.m. "What's New In Ophthalmic Plastic Surgery—Part I"
Alston Callahan, M.D., Birmingham, Ala.
2:00 p.m. "Silicone Frontalis Slings"
Thomas E. Campbell, M.D., Louisville
2:20 p.m. "New Advances in Cryotherapy"
Richard A. Efferman, M.D., Louisville
2:30 p.m. Intermission to Visit Exhibits
3:00 p.m. "The Role of the Lacrimal Excretory System in Tear Physiology"
William N. Offutt, IV, M.D., F.A.C.S., Lexington
3:30 p.m. "What's New In Ophthalmic Plastic Surgery—Part II"
Alston Callahan, M.D., Birmingham, Ala.

**Kentucky Chapter
American Academy of Family Physicians**
Julia Belle Room

- 1:30 p.m. "Treatable Cerebrovascular Disease"
Thomas Brott, M.D., Cincinnati, Ohio
2:30 p.m. Intermission to Visit Exhibits
3:00 p.m. "Treatable and Untreatable Dementia"
William R. Markesbery, M.D., Lexington

Kentucky Society for Gastrointestinal Endoscopy
Delta Queen Room

- 1:30 p.m. "Hypertrophic Gastritis and Endoscopy"
Gerald Larsson, M.D., Louisville
1:50 p.m. "What Has G.I. Endoscopy Actually Done for Cancer Control?"
Carl Knutson, M.D., Louisville
2:10 p.m. "Complications of Fiberoptic Endoscopy"
M. Shahmir, M.D., Bowling Green
B. Schuman, M.D., Bowling Green
2:30 p.m. Intermission to Visit Exhibits
3:00 p.m. "Atrophic Gastritis Type B"
W. Stephen Aaron, M.D., Louisville
3:20 p.m. "Diagnosis and Treatment of Upper Gastrointestinal Bleeding (endoscopic hemostasis, pharmacotherapy)"
Fred E. Silverstein, M.D., Seattle, Wash.
4:00 p.m. Business Meeting

Kentucky Occupational Medical Association
Island Queen Room

- 1:30 p.m. "Cardiology of Occupational Medicine"
Henry S. Miller, Jr., M.D., Winston-Salem, N.C.
2:30 p.m. Intermission to Visit Exhibits
3:00 p.m. Annual Business Meeting

**Kentucky Chapter
American College of Physicians**
Majestic-New Orleans Room

- 1:30 p.m. "Percutaneous Transluminal Coronary Angioplasty"
Daniel D. McMartin, M.D., Louisville
2:00 p.m. "Approach to the Patient with Proteinuria"
Marc A. Pohl, M.D., Cleveland, Ohio
2:30 p.m. Intermission to Visit Exhibits

3:00 p.m. "Use of Toxic Drugs in the Treatment of Rheumatoid Arthritis"

Norman A. Cummings, M.D., Louisville

3:30 p.m. "Diagnosis and Treatment of Vasculitis"

John S. Thompson, M.D., Lexington

**Kentucky Association of
Public Health Physicians**

Natchez Room

1:30 p.m. "Immunization"

Edward Mortimer, M.D., Cleveland, Ohio

Summaries of General Sessions Presentations 1981 KMA Annual Meeting

Selman I. Welt, M.D.

Hypertensive Disease in Pregnancy: The Treatment of Two Patients at the Same Time

Current concepts are presented about the spectrum of disease in Hypertensive Disease in pregnancy dealing primarily with how the pregnant patient differs from the nonpregnant patient with regard to specific manifestations of disease and forms of therapy.

- I. Effect of pregnancy on blood pressure
MacGillivray *Clin Sci* 37:395 (1969)
Page *Amer J OB-GYN* 125:740 (1976)
- II. Effect of hypertension on pregnancy
Page *Amer J OB-GYN* 126:821 (1976)
Roberts *Amer J OB-GYN* 127:316 (1977)
- III. Evaluation of the hypertensive gravida
Welt *Clin OB-GYN* 21:619 (1978)
- IV. Antihypertensive drug agents during pregnancy
Welt *Clin OB-GYN* 21:619 (1978)
Welt *OB-GYN* 57:557 (1981)

John L. Waller, M.D.

Anesthesia and Ischemic Heart Disease— Newer Concepts

Safe anesthetic management techniques for patients with ischemic heart disease have been devised. 'State-of-the-art' anesthetic skills include more than the ability to render cardiac patients unconscious without causing their demise. The delivery of expert cardiovascular intensive care, providing optimum control of myocardial oxygen balance through 'fine-tuning' of the circulation is now essential. The development of such expertise requires thorough familiarity with underlying pathophysiologic principles, anesthetic management and patient monitoring techniques.

WILLIAM E. DAVIS, M.D. Columbia, Missouri



Chief of Otolaryngology Veteran's Administration Hospital, Columbia, Mo. Director and Initiator of Head and Neck Tumor Clinic, University of Missouri Medical Center, Columbia, Mo. Director and Initiator of Head and Neck Tumor Clinic, Harry S. Truman Veteran's Administration Hospital, Columbia, Mo. Associate Professor, University of Missouri Medical Center, Columbia. Member, National Board of Medical Examiners; American Board of Otolaryngology; Fellow, American College of Surgeons; Fellow, American Academy of Facial, Plastic and Reconstructive Surgery.

GERALD F. FLETCHER, M.D. Atlanta, Georgia



Professor of Medicine, Emory University School of Medicine, Atlanta, Ga. Director, Internal Medicine, Georgia Baptist Hospital, Atlanta Medical Center, Atlanta, Ga. M.D., 1961, Emory University, Atlanta, Ga. Member, AMA; American Federation of Clinical Research; President Elect, American Heart Association; Georgia Affiliate, 1980-81. Author of numerous scientific articles.

GLENN O. TURNER, M.D. Springfield, Missouri



Private Practice of Internal Medicine (Heart and Lung Disease), The Springfield Clinic of Internal Medicine, Inc. (senior partner). Chairman, Intensive-Cardiovascular Care Unit Committee, St. John's Hospital, Springfield, Mo. Consultant, Tuberculosis and Internal Medicine, U.S. Medical Center for Federal Prisoners. M.D., 1942, Washington University, St. Louis, Mo. Member, American College of Physicians; AMA; American Heart Association; Fellow, Council of Clinical Cardiology; Missouri State Medical Association. Author of publication—*The Cardiovascular Care Unit—A Guide for Planning and Operation*, 1978.

RAPHAEL F. SMITH, M.D. Nashville, Tennessee



Chief, Cardiology Section, VA Medical Center, Nashville, Tn. Associate Professor, Biomedical Engineering, Vanderbilt University, Nashville. Associate Professor of Medicine, Vanderbilt University School of Medicine. M.D., 1960, Harvard Medical School, Boston, Mass. Member, Southern Society for Clinical Investigation; Diplomate, American Board of Internal Medicine (Cardiovascular Disease); American Federation for Clinical Research; Boylston Medical Society; Diplomate, National Board of Medical Examiners.

Constantine Mavroudis, M.D.

The Changing Role of Palliative and Corrective Surgery in the Treatment of Congenital Heart Disease in the Infant

The subject matter is a timely discussion on increased trends in early total correction of congenital heart defects in infancy. Specific lesions will be discussed such as: Tetralogy of Fallot, Transposition, Truncus Arteriosus and Ventricular Septal Defects.

Mr. Richard Turner-Warwick

Age Related Dysfunction of the Bladder

The presentation will focus on a clinical urodynamic view of age related disorders of detrusor and sphincter function associated with common clinical problems with special reference to nocturnal enuresis, bladder outlet obstruction in the male and female urinary incontinence.

Randall G. Griepp, M.D.

Diagnosis and Treatment of Acute Aortic Dissections

Acute aortic dissection is a catastrophic disease of the thoracic aorta which, if not promptly diagnosed and treated, will result in the death of the majority of patients within a month. Proper treatment of the acute aortic dissection includes clinical diagnosis, prompt institution of medical treatment, angiographic characterization of the type of aortic dissection, and appropriate selection of surgical or medical therapy. With appropriate diagnosis and treatment, 50% five-year survival is achievable.

Elissa P. Benedek, M.D.

Breast Development in the Female Adolescent

The literature on adolescent female breast development will be reviewed including the physiological sequence of normal female adolescent breast development and the psychological responses to such development of the adolescent, her family and her peers. Breast development is a line of developmental growth neglected by psychiatrists, pediatricians and other health professionals. It is critical that those dealing with adolescents both note and discuss with the female her feelings about her physical development with relationship to herself, her peers (male and female) and her family.

Leonard R. Rubin, M.D.

Reanimation of the Paralyzed Face By Contiguous Muscle Transposition

The paralyzed face patient seeks restoration to the former normal state. Successful reanimation can be accomplished by transposing the entire temporalis muscle to activate the eyelids, naso-labial fold and upper lip. The masseter muscle can control the lower lip. The frontalis muscle on the good side can help control the drooping eyebrow on the affected side.

A careful study of the mechanics of smiling must be made for each patient. The transposed muscles and their tendons are sutured into the lips on the paralyzed side in the exact mirror image position of the normal smile contraction. This will create a **normal** balanced facial movement.

Presentation with 35 mm. slides of the technique, 16 mm. motion pictures of surgery and pre and post-operative photos of patients.

Jesse E. Edwards, M.D.

The Myxomatous Mitral Valve

The myxomatous mitral valve is characterized by there being an excessive amount of spongiosa, the normally occurring central part of the valve leaflet. In this condition the excessive spongiosa encroaches upon the fibrosa, the collagenous layer on the ventricular aspect of the valve. As the fibrosa supplies the essential strength of the leaflet, its focal interruptions by the excessive spongiosa weakens the leaflet and allows it to exhibit interchordal hooding or prolapse toward the left atrium.

Some degree of prolapse is very common, even in the normal, and currently there is not a clear dividing line between the normal and abnormal states of prolapse as seen both in pathologic and echocardiographic examinations.

The condition of prolapse takes on significance when one of the associated conditions or complications occur. The condition, often identified by a mitral click and late systolic murmur, is usually benign. Premature ventricular contractions are common.

Among the major complications are rupture of chordae tendineae with onset of or accentuation of preexisting mitral insufficiency. Rupture of chordae more commonly involves support for the posterior leaflet than for the anterior. The regurgitant stream from mitral insufficiency from loss of support of the posterior leaflet is so directed as to be responsible for a murmur that may be confused with that of aortic stenosis.

Bacterial endocarditis is yet another potential complication of the myxomatous mitral valve but is evidently

relatively uncommon compared to the incidence of myxomatous mitral valve in the population.

Transient cerebral ischemic attacks occur. It has been proposed that these result from embolism of fibrin and platelet aggregations that may occur on the contact surface of the myxomatous valve.

Sudden death is an uncommon complication, but may be observed in individuals with only minor degrees of the condition involving the mitral valve.

Associated conditions include similar involvement of the other valves and cystic medial necrosis of the aorta.

Secondary changes include fibrous lesions of the mural endocardium of the left ventricle of that part of the wall that is related to chordae of the posterior mitral leaflet. The lesions may coalesce and also may become adherent to the related chordae. The latter process converts originally long chordae into effectively shortened ones.

Raymond G. Slavin, M.D.
The Basis For and Management of
Drug Induced Anaphylactic Shock

In this presentation, drug induced anaphylactic shock will be discussed with special emphasis on the cardiovascular system. The immunologic basis will be considered along with clinical manifestations, prevention including avoidance and desensitization and eventual treatment of the generalized allergic reaction.

Donald E. Schwarten, M.D.
Transluminal Angioplasty

Non-operative treatment of arteriosclerotic obstructive vascular disease with catheters was first described by Dotter and Judkins in 1964. Since that time the availability of more sophisticated polymers for catheter construction has permitted the development of highly versatile catheters to manage not only arteriosclerotic vessels, *ie* the coronary arteries, the renal arteries, mesenteric vessels, etc.

A brief overview of the catheter materials employed for percutaneous transluminal angioplasty as well as clinical indications for the use of the procedure will be described, and clinical examples will be demonstrated.

Glenn O. Turner, M.D.
Cardiovascular Care Unit
Design and Operation
In Small, Medium and Large Hospitals

After a period of several years of sharply increased public and professional attention to the cost and effectiveness of special care units in general and coronary

care units in particular, coupled with highly vocal critics alleging "dehumanization" in these facilities, now is a proper time for reassessment of their present state and future.

Because of these questions and charges, there has resulted a regrettable lag in improvements in special care unit design and function. The cost and benefits of burgeoning medical technology constitute an important component of this issue.

This topic will be dealt with as a "systems approach" to coronary, cardiovascular and special care units in general in a manner to validate the cost-quality-effectiveness of admission-to-discharge special care systems for hospitals of all sizes.

Raphael F. Smith, M.D.
Complications of
Acute Myocardial Infarction

The complications of myocardial infarction can be separated into two broad categories—those due to hemodynamic derangements and those related to electrical instability. Although the hospital mortality for acute myocardial infarction has declined significantly during the past two decades, we have not had uniform success in managing all types of complications. For example, death from primary ventricular fibrillation is rare in most hospitals but the mortality rate in cardiogenic shock remains well over 50%. The objectives of this presentation are to develop strategies based on first principles, readily available diagnostic information, and standard therapeutic modalities to manage patients with complications of acute myocardial infarction.

Myocardial infarction should not be thought of as a single functional disorder but rather as a series of abnormal hemodynamic derangements that may present singly or in combination. The clinical manifestations of these subsets are pulmonary congestion and peripheral hypoperfusion. Measurements of pulmonary artery and systemic blood pressure can be used to guide the physician in selecting interventions designed to change ventricular filling pressure (preload), alter peripheral vascular resistance (afterload) or to increase the contractility of the heart. Matching the therapeutic intervention to the hemodynamic derangement will optimize the chances for a successful outcome.

In treating the patient with acute myocardial infarction and serious arrhythmias, the physician must first accurately diagnose the arrhythmia and then carry out therapy in a systematic, albeit empiric manner. This includes eliminating correctable predisposing factors for the arrhythmia, selecting an antiarrhythmic drug that has a high probability of success, and then giving the drug in a way that will achieve a blood level that is in the

therapeutic range. Heart block and other bradyarrhythmias that cause inadequate peripheral perfusion are effectively treated by electrical pacing. In some instances the physician may elect to insert a pacing electrode if the patient has electrocardiographic evidence of impending heart block. The arrhythmias associated with acute myocardial infarction can usually be successfully managed with a single standard antiarrhythmic drug.

Gerald F. Fletcher, M.D.

Evaluation Results of the Coronary Care Unit and the Future of Coronary Care

Coronary or Cardiac Care had evolved to a very sophisticated level in most tertiary medical centers and is one of the factors responsible for a decrease in cardiovascular mortality in the last decade. In addition, the Coronary Care Unit has become an area for invasive diagnostic procedures such as Swan-Ganz monitoring and therapeutic measures such as transvenous pacemaker insertion and intraortic counterpulsation. Utilization of specific intravenous cardiac drugs such as nitroglycerin, nitroprusside, dopamine, doputamine, and propranolol have offered new pharmacologic interventions that are often initiated in the acute phase of cardiac care.

The future of coronary care will include earlier use of medications and technology for salvage of myocardium and prevention of extension or recurrence of myocardial infarction. Streptokinase infusion, early cardiac catheterization, coronary angioplasty, myocardial revascularization, use of antiplatelet drugs and active rehabilitation will be among early utilized modalities. This future of coronary care will be involved specifically in the prophylaxis for infarction and current management to effect this will be of paramount importance.

Thomas G. Brott, M.D.

Stroke Update:

Advances in Diagnosis and Treatment

Epidemiologic studies have highlighted the important and manipulable risk factors for stroke. Advances in computed tomography, angiography, and non-invasive vascular testing have allowed more reliable categorization of the stroke population (and the stroke prone). Morbidity and mortality for surgical therapies continue to fall. Medical options have widened and continue to be difficult to evaluate.

Fred E. Silverstein, M.D.

The Role of Diagnostic and Therapeutic Gastrointestinal Endoscopy in Clinical Medicine

During the past decade there has been a marked increase in the use of flexible fiberoptic endoscopy for examination of the upper and lower gastrointestinal tract. In this presentation I will discuss the role of diagnostic endoscopy with respect to the patient with dyspepsia, the patient with upper gastrointestinal bleeding, the patient with occult gastrointestinal bleeding, and in the evaluation of the hepatobiliary and pancreatic ductal systems. I will then consider the role of therapeutic endoscopy in clinical medicine, including endoscopic polypectomy, endoscopic foreign body retrieval, endoscopic papillotomy for common bile duct stones, and endoscopic methods to control gastrointestinal bleeding. Finally, we will consider some future prospects for endoscopy including the use of fiberoptic endoscopes combined with high-frequency, high-resolution, real-time ultrasound for the early diagnosis of gastrointestinal malignancy.

Roy S. Rogers, III, M.D.

Chronic Venous Insufficiency and Stasis Dermatitis

This presentation will highlight the physiology of venous drainage and the pathophysiology of both deep and superficial chronic venous insufficiency of the lower extremities. Complications of chronic venous insufficiency such as stasis dermatitis, contact dermatitis, and lymphangitis will be discussed. Management of these conditions will be emphasized.

William E. Davis, M.D.

Epistaxis: Current Management

Epistaxis will be covered in terms of the etiology, pathogenesis, and current trends in therapy.

Z-plasty Techniques

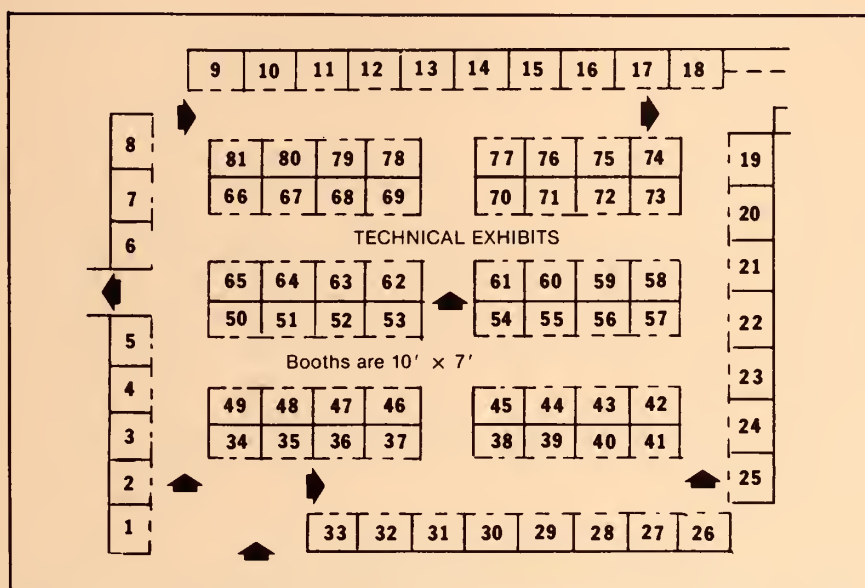
Z-plasty will be covered from the beginning and an attempt will be made to integrate current knowledge of Z-plasty into thinking of other types for local flap reconstruction of small facial defects. This discussion will be appropriate for Family Practice and General Surgery physicians who are interested in this area.

Latest Research Advances in Products and Services Offered by 1981 Technical Exhibits

The Technical Exhibits at the 1981 KMA Annual Meeting will feature the latest developments in medical techniques and information. Located in the Bluegrass Convention Center, the exhibits will condense a volume of information and ideas in such a manner that a vast amount of knowledge can be secured in a short period of time.

Prepared carefully and skillfully to appeal to you, the physician, the exhibits are especially geared to your special interests as a practitioner. Medical representatives and other exhibitors will be on hand to discuss personally their products and services with you. Both you and your patients should benefit from the information that can be gained from a visit to the Technical Exhibits.

Thirty-minute intermissions have been planned during each general and specialty group session so that every physician may take advantage of this excellent opportunity provided by the exhibits.



1981 Technical Exhibitors

Abbott Laboratories (2)
Adria Laboratories (53)
Ames Division, Miles Laboratories, Inc. (41)
A. P. Lee Agency, Inc. (30)
ASC of Louisville (63)

Bache Halsey Stuart Shields, Inc. (78)
Berlex Laboratories, Inc. (36)
Blue Cross & Blue Shield and Delta Dental of Kentucky (21)
Boehringer Ingelheim (45)
Boots Pharmaceuticals, Inc. (80)
Burroughs Wellcome Co. (24)

Capitol Creation Co., Inc. (67)
Central Pharmaceuticals, Inc. (8)

Damon Clinical Laboratory (10)
Dictaphone Corporation (32)
Division For Disability Determination (76)

Dolbey and Company (75)
Dorsey Laboratories (51)
Dow Pharmaceuticals (64)

Encyclopaedia Britannica, Inc. (18)
Endo Laboratories/DuPont (60)

Feld Printing Company (44)
Flint Laboratories (54)

Geigy Pharmaceuticals (15)
Glaxo, Inc. (27)
Grogan's Inc. (59)
Guild of Prescription Opticians of Ky. (5)

Hoechst-Roussel Pharmaceutical, Inc. (74)

Hospital Corporation of America (11)
Humana, Inc. (62)

Insurance Corporation of America (70)
International Medical Electronics, LTD (57)
Ives Laboratories, Inc.

John Hancock Life Insurance Co. (35)

Keep/Safe of Kentucky (7)
Ky. Medical Insurance Company (13)

The Lang Company (16)
Lederle Laboratories (37)
Lightcom, Inc. (68)
Eli Lilly and Company (25)
Lundia-Burton Sales Co., Inc. (77)

McNeil Pharmaceuticals (28)
Mead Johnson Nutritional Division (38)
The Medical Protective Company (6)
Merck Sharp & Dohme (3)
Metropolitan Life - Medicare (17)
Miles Pharmaceuticals (43)
Milex Products, Inc. (69)

NCR Corporation (52)

Olympus Corporation of America (71)
Ortho Pharmaceutical Corp. (1)

Pathology & Cytology Laboratories, Inc. (58)
Physio Control Corporation (47)

PICO and PICO Life (14)
Wm. P. Poythress & Co., Inc. (4)
Procter & Gamble (55)
Professional Accounting Systems (73)
Professional Data Control (72)
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Ransdell Surgical, Inc. (9)
Reed & Carnrick (61)
A. H. Robins Company (34)
Roche Laboratories (31)
J. B. Roerig (20)
William H. Rorer, Inc. (19)
Ross Laboratories (40)

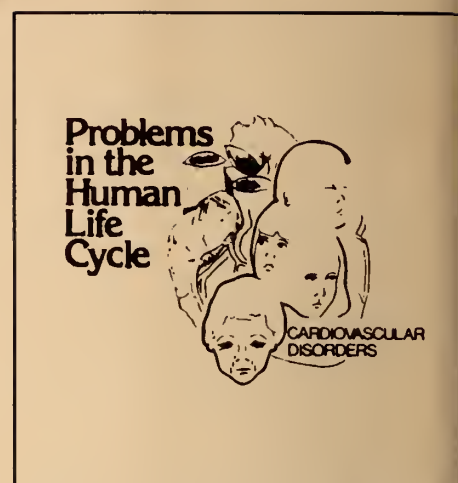
Sandoz Pharmaceuticals (50)
W. B. Saunders Co. (26)
Clayton L. Scroggins Associates, Inc. (23)

Searle Laboratories (33)
South Central Bell (29)
Smith, Kline & French Laboratories (65)
E. R. Squibb & Sons, Inc. (49)
Stuart Pharmaceuticals (46)

TAB Products (12)
Tele-Research, Inc. (48)

Un-I-Med, Inc. (79)
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Whittaker General Medical (39)
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Plan to attend the following films which will be shown before each General Session in the General Sessions Hall.

Tuesday

8:25 a.m.

"Office Management of Hypertension"

Wednesday

8:10 a.m.

"Coronary Artery Spasm and Ischemic Heart Disease:
The Role of Calcium Blockade"

Thursday

8:35 a.m.

"Office Management of Hypertension"

MAKE YOUR RESERVATIONS NOW

It is important that you begin to make your room reservations as soon as possible for the KMA Annual Meeting, September 21-24. The Ramada Inn/Bluegrass Convention Center at I-64 and Hurstbourne Lane will be the Headquarters Hotel. However, there are several other accommodations within easy reach of Ramada Inn and the Bluegrass Convention Center. In making your reservations, remember the first House of Delegates meeting will be Monday, September 21.

The Fall meeting of the Kentucky American Medical Women's Association is scheduled for Sunday, Sept. 20, from 2 to 5 p.m., in the VIP Lounge, University of Louisville Medical School, Preston and Mohammad Ali Blvd.

The program will feature a panel of women physicians representing many different specialties discussing the topic, "Women Physicians in Private Practice." All women physicians, medical students and residents are invited to attend.

Tracheoesophageal Fistula and Atresia
Renal Failure
Thoracic Aortic Trauma

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Number 9

The Journal Of The Kentucky Medical Association

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MDS

Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to decrease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgeable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche), please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

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Valium[®] diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma. May be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium[®] (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose[®] packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10.

Postgraduate Opportunities

SEPTEMBER

- 12 Using Laser in Glaucoma, Vernon Manor Hotel, Cincinnati, OH
- 18-19 Choosing and Using a Computer System in a Private Medical Practice, Grand Hyatt, New York
- 18-20 Human Sexuality, Brown County Inn, Nashville, IN
- 19-21 American Academy of Family Physicians, Congress of Delegates, Las Vegas Hilton, Las Vegas, Nev.
- 21-24 American Academy of Family Physicians, Annual Scientific Assembly, Las Vegas Convention Center, Las Vegas, Nev.
- 22-24 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville, KY
- 25-27 Second National Seminar on Community Cancer Care, Hyatt Regency, Indianapolis, IN
- 29-3 5th District Meeting of the American College of Obstetricians and Gynecologists, Hyatt Regency, Lexington

OCTOBER

- 2-3 Choosing and Using a Computer System in a Private Medical Practice, Dallas/Ft. Worth, Hyatt Regency/Ft. Worth
- 2-4 Midwest Forum on Allergy, Stouffer's Inn, Cleveland, OH
- 17 3rd Annual Physicians Recruitment Fair, Ramada Inn/Bluegrass Convention Center, Louisville
- 17 Kentucky Regional Meeting American College of Physicians and Kentucky Society of Internal Medicine, Hyatt Regency, Lexington
- 16-17 Choosing and Using a Computer System in a Private Medical Practice, Chicago, Hyatt Regency/Woodfield
- 29-1 Hypnosis in Medicine, Louisville Inn, Louisville
- 30-31 Allergy and Immunology for the Clinician, Hyatt, Hilton Head Island, SC
- 30-31 Choosing and Using a Computer System in a Private Medical Practice, Las Vegas, Riviera

NOVEMBER

- 5-7 Gynecologic Surgery, Marriott Inn, Clarksville, IN
- 12 Diabetes Update, Hyatt Regency, Louisville

DECEMBER

- 4-5 Choosing and Using a Computer System in a Private Medical Practice, Atlanta
- 8-10 American Cancer Society, National Conference-Gastrointestinal Cancer-1981, Fountainsbleau Hilton Hotel, Miami Beach, FL
- 10-11 Current Topics in Geriatric Medicine, Duke University, Durham, NC
- 10-12 Current Concepts in Cancer Therapy, St. Louis, MO



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BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g/l) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy. This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears. If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General
Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS). Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine

have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine and result in respiratory difficulties.

Urinary alkalinizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes.

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM/kg) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative, when mammalian liver homogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage. (Individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision, tinnitus, deafness and vertigo, headache, nausea, vomiting, fever, apprehension, restlessness, confusion, and syncope.

Dermatologic/allergic: cutaneous rashes (urticarial), the most frequent type of allergic reaction, papular or scarlatiniform, pruritus, flushing of the skin, sweating, occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related), epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October 1980

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching. It may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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PRESIDENT'S PAGE

THE annual KMA meeting plans are final and a comprehensive program will be presented which will serve all of the KMA membership. All Kentucky physicians are urged to attend and participate for the betterment of Kentucky medicine. The educational programs, guest speakers, convention booths and specialty group meetings that are planned are all outstanding and deserve support and participation.

The Annual Meeting brings to close another Associational year and a new beginning. This year I have enjoyed the opportunity of serving as your President. All of the members have been supportive and I have not called on a single physician who has not been responsive on behalf of the Association and its membership. Your support, work and confidence have been greatly appreciated.

Kentucky physicians are fortunate to have a skilled, highly motivated, professional staff who produce a remarkable job on behalf of medicine. The backup support, assistance and guidance given to your Officers and Board by the staff is unparalleled in any organization of which I am aware. KMA's staff is the envy of every other state organization and even the AMA.

Many hours, miles and untold effort is also offered each year by the many physicians who serve on the various committees, subcommittees and task forces of our Association. We can stand proud of the broad based support and effort by physicians on behalf of their Association. Our Association is strong and viable through this dedicated broad based effort and support by its membership.

As we begin a new associational year, many old problems will linger and new problems will project themselves into our arena. The new associational year will see a legislative year in which many critical issues will face medicine. Medicare, Medicaid, physician extensors, reimbursement programs, district health departments, continuing education, licensure, educational funding, professional liability, peer review, cost containment, hospital maintenance, construction, moratoriums, are but a few of the issues which medicine must address. A united, organized effort by Kentucky physicians will allow them to continue to be masters of their own destiny.

Frank R. Pitzer, M.D.
KMA President



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Tracheoesophageal Fistula and Atresia: An Index Case for Newborn Surgical Care

DILLER B. GROFF, M.D. AND HIRIKATI S. NAGARAJ, M.D.

THE newborn with an anomaly which must be surgically corrected is a challenge to the medical community, and the child born with one of the varieties of tracheoesophageal atresia with or without fistula (TEF) remains the most profound challenge (Figure 1). The opportunity to diagnose the newborn with TEF arises in the prenatal period when the mother may develop polyhydramnios. The fetus with a TEF cannot swallow the amniotic fluid so that it can be absorbed by the fetal intestine and cleared through the placental circulation. Sometimes the presence of polyhydramnios is first noticed at delivery, and this should alert the physician that the just delivered infant needs a full examination of the gastrointestinal tract. The presence of a TEF can essentially be ruled out if the physician at delivery successfully passes the nasopharyngeal suction catheter down the esophagus into the stomach; if it does not pass easily a TEF must be suspected.

When the newborn with a TEF reaches the nursery it is usually noted to have excess sali-

vation, and this is almost a universal finding. Certainly the inability to feed without coughing or regurgitating most of the formula indicates a serious problem. When asked to see a newborn with excess saliva or feeding difficulties, the physician should pass a moderately stiff catheter, such as a #10 red rubber straight catheter, or a larger polyvinyl catheter which won't accidentally curl up in the hypopharynx instead of passing to the stomach. If the catheter does not pass, the physician should take an x-ray of the child with a little tension on the catheter so that it bends or buckles slightly in the blind pouch (Figures 2A & 2B). Failure to pass this catheter to the stomach with the supporting x-ray evidence makes a presumptive diagnosis of TEF and should promote transfer to a level three neonatal center.

Transportation of the newborn with a TEF is critical. As with all newborns he must be kept warm at all times. He must be in an upright Fowler's position to diminish reflux of gastric juice up the fistula, and the proximal blind pouch must be kept empty by intermittent suction through #8 or #10 French catheter placed through the nose

TRACHEOESOPHAGEAL FISTULA AND ATRESIA—Groff and Nagaraj

or mouth into the blind pouch. Specialized ground and air transportation with highly trained neonatal nurses and pediatricians is available through the level three centers (Louisville and Lexington). Unless the patient is hypotensive time should not be wasted trying to start an IV or perform a cut-down.

Upon arrival in the neonatal unit the patient will be examined for the presence of other congenital anomalies (heart, imperforate anus, duodenal and small bowel atresia are most common) his blood gases and fluid balance brought to normal, and respiratory support with oxygen or orotracheal intubation supplied. Pneumonia is the most frequent complication in the patient with uncorrected TEF. If the patient is full term, has no other congenital anomalies, has no pneumonia and is in good physiologic status, the surgeon will undertake total correction of the TEF. If the patient is premature or has other congenital anomalies, pneumonia or severe electrolyte deficits, a gastrostomy will be performed under local anesthesia, the upper pouch will be constantly decompressed with a sump suction catheter, and steps taken to clear the pneumonia or correct acid base and electrolyte problems. The patient with a gastrostomy and a TEF can be kept in the neonatal intensive care unit for days in order to correct pulmonary or metabolic conditions.

The operative correction is greatly simplified by the presence of a pediatric anesthesiologist with special pediatric experience as the procedure performed is a thoracotomy and mediastinal dissection. Most surgeons now use an extrapleural approach to the esophagus. The first goal of surgery is to disconnect the tracheoesophageal fistula without narrowing the trachea with sutures or cutting many vagal nerve fibers to the distal esophagus. The second goal is to reestablish continuity of the esophagus by anastomosing the blind upper pouch to the divided fistula and distal esophagus. In order to relieve the incidence of gastroesophageal reflux in later life and the universal esophageal motility problems these patients have, the distal esophagus is mobilized as little as possible. The upper pouch is dissected off the trachea to get length, always looking for the very rare proximal pouch TEF. Mobilization of the

proximal esophagus will usually produce enough length for the anastomosis, but if it does not multiple circular myotomies or other plastic procedures on the upper pouch can be done. The upper pouch is not opened until it is certain that the anastomosis can be performed. Every effort is made to use the patient's own esophagus and not be forced to perform a colon or a gastric tube interposition when the child is older. If the gap is too large between the upper and lower esophagus, the lower esophagus is fixed to the mediastinal tissues, the upper pouch is left intact and the chest is closed; the patient must then have a gastrostomy. In the first month of life normal growth accompanied by bouginage will almost always allow for primary anastomosis at the second thoracotomy.

We reviewed our experience at the Children's Hospital, Division of Norton-Children's Hospitals, between 1974-1978 (Table 1). Ten of the 12 patients were in a high risk category due to prematurity, multiple congenital anomalies or the presence of preoperative pneumonia (Table 2). There were no deaths in these 12 patients as a result of the repair of the TEF. Complications were few and even the two anastomoses that leaked, healed without sepsis—a tribute to the extrapleural approach. Two of these patients later developed significant gastroesophageal reflux, and one required a fundoplication in infancy.

Discussion

In the 1953 edition of Robert E. Gross's textbook, the survival for babies with tracheoesophageal fistula and atresia in 1952 was 67% (85% for full-term infants treated in Boston Children's Hospital).¹ Since 1952, the factors such as prematurity and the presence of other congenital anomalies which contribute to mortality and morbidity in the patient with tracheoesophageal atresia and fistula (TEF) have become better appreciated. In the mid 1960s, David J. Waterston and his colleagues at The Hospital for Sick Children, Great Ormond Street, London, introduced a more specific classification system which is now widely used to assign infants with tracheoesophageal fistula and atresia (TEF) to risk categories (Table 3).² Being full-term by weight (5½ lbs or

TRACHEOESOPHAGEAL FISTULA AND ATRESIA—Groff and Nagaraj

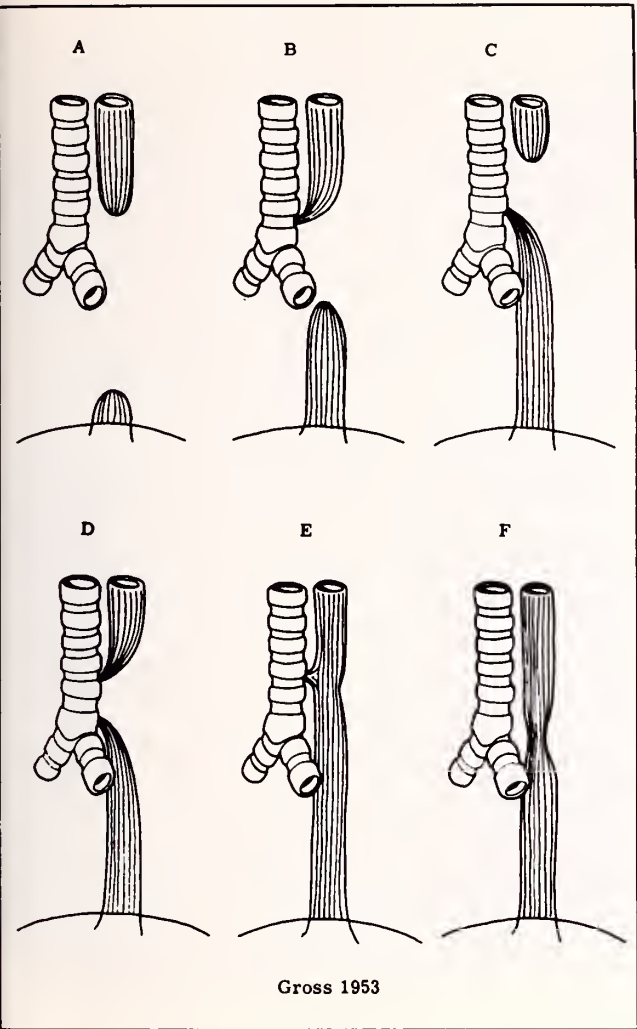


Fig. 1: Classification of types of tracheoesophageal atresia with or without fistula according to Robert E. Gross, M.D. This remains the standard for graphic descriptions of this lesion.

2.5 kg) is the most favorable condition for newborn well-being. On the basis of his experience at Great Ormond Street, Dr. Waterston found that, as a group, these full-term babies did well despite the TEF. Uncomplicated premature infants and full-term babies with pneumonia or another minor anomaly, such as hemivertebrae or hypospadias, do less well. The highest risk category is the small premature (under 1.8 kg) or any baby with a second severe anomaly, such as imperforate anus, duodenal atresia, or congenital heart disease.

Using Waterston's categories, it is easier to see what the expectation of survival should be in a

modern neonatal acute care system. Meyers' data from Melbourne's Royal Children's Hospital shows a remarkable 100% survival for a full-term newborn with uncomplicated TEF.³ Even Meyers' highest risk premature infant with complications had a 75% chance of survival in the five year period 1973 to 1977 (Table 4).

What are some of the factors in this improved outlook for newborns with TEF? Certainly, the most significant is the establishment of regional neonatal intensive care units where the expertise of pediatric surgeons, neonatologists, pediatric radiologists, and pediatric anesthesiologists is available. The expert and dedicated neonatal intensive care nurse is often the key person in the survival of neonates in such a unit. Improved respiratory care and ventilatory support have contributed greatly to the decrease in respiratory problems which have occurred between 1973 and 1977 as reported by Stothert (Table 5).⁴

Neonatal intensive care units usually have ground and air transport service which makes it safe and efficient to transfer high-risk neonates. More skilled and knowledgeable physicians and nurses at small hospitals result in earlier diagnosis and referral for treatment before pulmonary and metabolic complications develop. All patients with TEF seen at Norton-Children's Hospitals between 1974 and 1978 were operated upon by 48 hours of age. Not performing diagnostic contrast studies of the upper pouch in community hospitals has saved many newborns the pneumonia caused by aspiration of hyperosmolar contrast material. Even the general knowledge that keeping newborns warm is necessary to prevent acidosis, has contributed significantly to the safe arrival of the newborn in the neonatal care center.

Improved surgical management and operative techniques have also developed. Staging of treatment by performing a gastrostomy under local anesthesia to prevent gastric juice from running back up the fistula to the lungs gives time to treat preoperative pneumonia or hyaline membrane disease. Constant suction on the blind upper pouch with a specially designed sump catheter helps to prevent atelectasis. Umbilical artery catheterization provides continuous monitoring

TRACHEOESOPHAGEAL FISTULA AND ATRESIA—Groff and Nagaraj



Fig. 2A: Plain x-ray showing radiopaque catheter in blind upper pouch, right upper lobe atelectasis, and gas in the intestinal system giving the essential diagnostic findings in TEF.



Fig. 2B: Close-up of blind pouch showing buckling of radiopaque catheter.

TRACHEOESOPHAGEAL ATRESIA AND FISTULA NORTON-CHILDREN'S HOSPITALS 1974-78

WATERSTON TYPE			PLEURAL APPROACH		ANASTOMOSIS	
A	B	C	EXTRA	TRANS	ONE	TWO
2	9	1	11	1	10	2

10 PATIENTS OPERATED UPON IN FIRST 24 HOURS, 2 BY 48 HOURS

Table 1

TRACHEOESOPHAGEAL ATRESIA AND FISTULA
NORTON-CHILDREN'S HOSPITALS 1974-78
12 PATIENTS - 5 PREMATURE

ANOMALIES

IMPERFORATE ANUS	-3
TRISOMY	18-1
VERTEBRAL	-1
VSD	-1

TOTAL 6

COMPLICATIONS

LEAK	-2
PNEUMONIA	-3
CHF	-1
PNEUMOTHORAX	-1
SEIZURES	-1
*GER	-2

10

* BOTH HAD EXTENSIVE DISTAL DISSECTION

Table 2

of blood gases and pH. After several days, the fistula can be divided through the chest.

Most pediatric surgeons believe that exposing the fistula and blind pouch by a retropleural (or extrapleural) technique has prevented serious sepsis from anastomotic leaks. In addition, keeping the pleural investment about the lung during surgery helps to prevent atelectasis. In his review, Stothert found that in the last five-year period all of their patients with TEFs were approached retropleurally; a technique change which undoubtedly contributed to the marked drop in complications during that period (Table 5).⁴ At Norton-Children's Hospitals, between 1974 and

1978, 11 out of 12 patients had a retropleural exposure for surgery.

A number of surgical techniques have been developed which produce enough elongation of the patient's own esophagus to allow restoration of esophageal-stomach continuity. Therefore, it is seldom necessary to use the intestine or stomach as an interposition replacement. Esophageal lengthening techniques include bouginage of the upper pouch, circular myotomy on the upper pouch, flap elongation of the upper pouch, and full dissection of the distal esophagus. Most surgeons now try to avoid distal dissection of the esophagus since this may contribute to gastroesophageal reflux later in life.

TRACHEOESOPHAGEAL ATRESIA AND FISTULA

RISK CLASSIFICATION

GROUP A: BIRTH WEIGHT OVER 2.5 KG AND WELL

GROUP B: B₁ BIRTH WEIGHT 1.8-2.5 KG AND WELL

B₂ BIRTH WEIGHT 1.8 KG AND ABOVE,
MODERATE PNEUMONIA AND/OR OTHER
MODERATE ANOMALY

GROUP C: C₁ BIRTH WEIGHT UNDER 1.8 KG

C₂ BIRTH WEIGHT OVER 1.8 KG SEVERE
PNEUMONIA AND/OR ADDITIONAL SEVERE
CONGENITAL ANOMALY

FROM WATERSTON D²

Table 3

Surgeons who operate upon newborns are striving for a 70-year cure. Since the majority of newborns with TEF now survive the immediate operative correction of the lesion, it is legitimate to ask what is the quality of life as these babies grow up and become adults? Many of the newborns will need periodic dilatation of the esophagus in the first six months after repair. This is easily done in the office as the patient is small and has no teeth. In childhood, most patients experience one or more episodes of food impaction at the suture line which require esophagoscopy to remove the food. These episodes stop as the child matures, gets his molar teeth and learns to chew his food better.

The reconstituted esophagus after TEF repair does not have normal peristalsis in the segment which was connected to the trachea. Long-term follow up of patients with TEF reveals that the esophagus remains abnormal into adulthood. Motility is abnormal, the lower esophageal sphincter pressure is below normal in 20 to 40% of patients, acid reflux occurs in 60% and narrowing on barium swallow is found in 55%. As a result of these abnormalities, half of the patients experience substernal dysphasia, one third have the late emptying of the esophagus with acid and food regurgitation. Postural heartburn and chronic respiratory infections bother 20%. Despite these findings, only 2 of 22 patients in Orringer's series

TRACHEOESOPHAGEAL FISTULA AND ATRESIA—Groff and Nagaraj

SURVIVAL IN PATIENTS WITH
TRACHEOESOPHAGEAL ATRESIA AND FISTULA
ROYAL CHILDREN'S HOSPITAL MELBOURNE

YEAR	GROUP A		GROUP B		GROUP C	
	%	(#)	%	(#)	%	(#)
1948-52	33	(1)	50	(3)	14	(1)
1953-57	100	(7)	69	(18)	29	(4)
1958-62	76	(16)	59	(16)	28	(5)
1963-67	97	(29)	78	(14)	59	(10)
1968-72	100	(41)	100	(17)	47	(7)
1973-77	100	(17)	84	(16)	75	(12)
TOTAL						
73 (234)	93	(111)	73	(84)	45	(39)

Table 4

FROM MEYERS N³

TRACHEOESOPHAGEAL ATRESIA AND FISTULA
CAUSE OF DEATH *

CAUSE	1955-62	1963-67	1968-72	1973-77
RESPIRATORY DISTRESS	5	3	4	0
PNEUMONIA	9	9	10	1
SEPSIS	6	9	10	1
CARDIAC FAILURE	5	6	3	2
ANASTOMOTIC LEAK	7	3	3	0
CENTRAL NEUROLOGIC	1	0	3	0
RENAL FAILURE	<u>1</u>	<u>0</u>	<u>2</u>	<u>0</u>
TOTAL	17	15	13	3

*MAY BE MORE THAN ONE FACTOR PER INFANT

Table 5

FROM STOTHERT J⁴

TRACHEOESOPHAGEAL FISTULA AND ATRESIA—Groff and Nagaraj

required antireflux surgery, and most patients adjusted well to their esophageal abnormalities.⁵

Up-to-date neonatal intensive care support and proper surgical repair of the newborn with TEF will result in the survival of 75 to 100% of all patients born with this severe congenital defect. Current techniques of esophageal reconstruction result in a satisfactorily functioning esophagus and have almost eliminated the need for bowel or stomach interposition operations. Long-term follow up shows that while a significant number of these patients have esophageal symptoms and abnormal esophageal physiology, most lead normal lives and only a small percentage require sur-

gery to control gastroesophageal reflux. Since expected survival is so high and long-term results so favorable, anyone wanting to know the quality of neonatal care in this region should examine the results of the treatment of TEF patients born in that region.

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The Department of Pediatrics, University of Louisville School of Medicine, is pleased to announce that the 15th Annual Newborn Symposium will be held on October 29, 30, 1981, in the Health Sciences Center Auditorium, Abraham Flexner Way. Participants will be Lewis A. Barness, M.D., Distinguished Louisville Pediatric Society Lecturer for 1981, John Johnson, M.D., James A. Lemons, M.D., Grant Morrow, III, M.D., Griffith E. Quinby, Jr., M.D., Joseph B. Warshaw, M.D., and members of the Department of Pediatrics.

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Recovery From Renal Failure Due To Necrotizing Vasculitis Associated With Hepatitis B Antigenemia

ALVIN L. STEIN, M.D., DEEPAK NAGAR, M.D. AND JACK BENHAYON, M.D.

Recovery from renal failure after six months is described in a patient with systemic necrotizing vasculitis associated with hepatitis B antigenemia after therapy with steroids, cyclophosphamide and hemodialysis. On presentation, the patient demonstrated severe wasting, extensive neuro-myopathy and rapidly progressive renal failure. Hepatitis B antigenemia and mild residual renal insufficiency persist. Nevertheless, he has had complete resolution of the neuromyopathy.

VASCULITIS represents a wide spectrum of disorders involving many organ systems.^{1,2}

Necrotizing vasculitis associated with hepatitis B antigenemia was first noted in 1970.³ Once advanced renal failure secondary to systemic vasculitis becomes established, improvement in renal function seldom occurs even with therapy. Tuma, et al⁴ reported a patient who presented with polyarteritis nodosa and acute anuric renal failure and in whom renal function improved following two weeks of therapy with dialysis, prednisone, and cyclophosphamide. We describe a patient with systemic necrotizing vasculitis with associated Hepatitis B antigenemia who presented with acute renal failure and neuromuscular and hematological abnormalities. There was resolution or improvement in all features of the patient's illness after six months of therapy with corticosteroids, cyclophosphamide and hemodialysis.

Case Report

A 25-year-old black man, incarcerated in a state corrections institute, was admitted to University Hospital in Louisville, Kentucky with the chief complaints of a 27-pound weight loss in one month, anorexia, low grade fever and myalgias. One month prior to admission, he was diagnosed

as having peptic ulcer disease which was treated with antacids and cimetidine. The patient's past history was significant for an episode of hematuria at the age of 12 years. He denied any history of hypertension, diabetes mellitus, or allergy. He also specifically denied illicit drug or alcohol abuse. Review of systems was unremarkable except for complaints of diffuse abdominal pain and severe, diffuse myalgias.

On admission, physical examination revealed an acutely ill appearing patient. The patient's vital signs were: pulse rate, 128 beats per minute; blood pressure, 170/110 mmHg; respiratory rate, 12 breaths per minute; and oral temperature, 100.6°F. The patient's abdomen was diffusely tender without rebound and all four extremities displayed marked muscle tenderness with obvious muscular wasting. Neurologic exam demonstrated marked muscular weakness as demonstrated by the inability to walk, sit up, or flex or extend his legs. In addition to obvious muscular weakness, the neurologic examination was notable for absent deep tendon reflexes in the lower extremities.

Laboratory evaluation showed a hemoglobin value of 11.7 g/dl, a hematocrit of 34.9 vol.%, and a WBC of 47,500 cells per cu mm with 90% polymorphs, 6% lymphocytes, and 4% monocytes. The platelet count was 720,000 cells per cu mm and the reticulocyte count was 3.2%. A peripheral blood smear showed polychromatophilia, in-

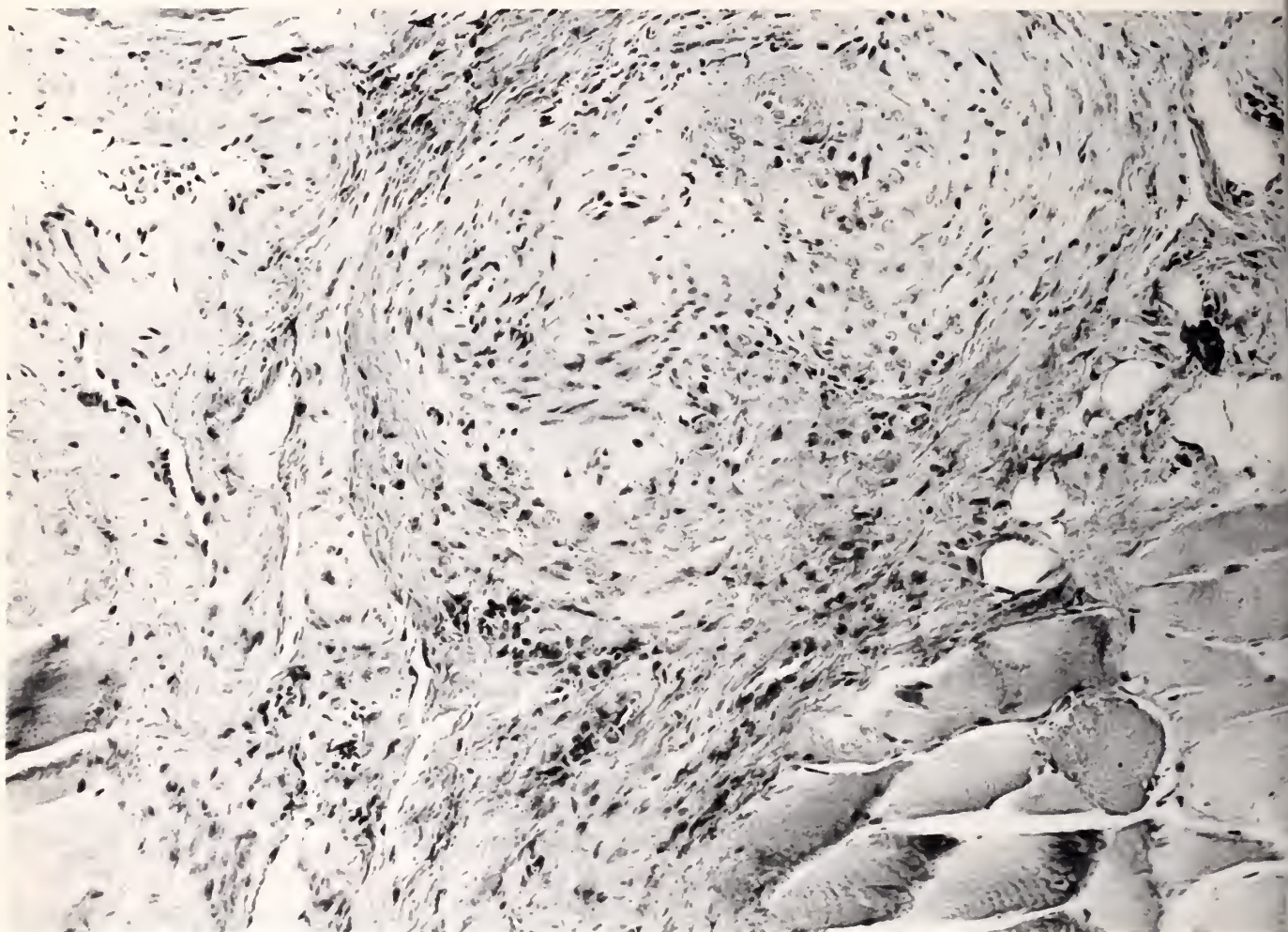


Fig. 1: Gastrocnemius biopsy (X210): Marked fibromuscular and intimal proliferation with necrosis of a small artery.

creased platelets and hypersegmentation of the neutrophils. The patient underwent bone marrow aspiration which showed increased megakaryocytes and increased number of histiocytes with greenish granules.

Urinalysis showed a specific gravity of 1.008, 2+ protein, a pH of 7, 4-6 WBC per hpf, and 4-6 RBC per hpf. No urinary casts were observed. Urine for myoglobin was negative. Total urine protein in 24 hours was 1.66 grams. The BUN was 32 mg/dl and the serum creatinine 2.1 mg/dl. The creatinine clearance was estimated at 48 ml/min.

Additional laboratory measurements revealed a serum sodium of 131 mEq/L, a potassium of 3.8 mEq/L, a chloride of 93 mEq/L, and a total

CO₂ of 29 mEq/L. The plasma glucose was 131 mg/dl. Other serum chemistries were: total protein, 5.8 g/dl (normal 6-8.5); albumin, 2.10 g/dl (3-5.5); alkaline phosphatase, 266 IU/L (30-115); SGOT, 68 IU/L (0-41); SGPT, 63 IU/L (0-45); LDH, 948 IU/L (60-200); and CPK, 311 IU/L (0-225). The prothrombin time and the partial thromboplastin time were normal. Serum aldolase was normal. Serum protein electrophoresis confirmed marked hypoalbuminemia without evidence of dysglobulinemia. The ASO titer was 333 Todd units. The Westgren sedimentation rate was 52 mm/hr (0-9). Serum complement levels (C₃ and C₄) were WNL. A chest roentgenogram was unremarkable. The patient's blood was found to be positive for HbsAg and anti-HBc, but was

RENAL FAILURE—Stein, Nagar and Benhayon

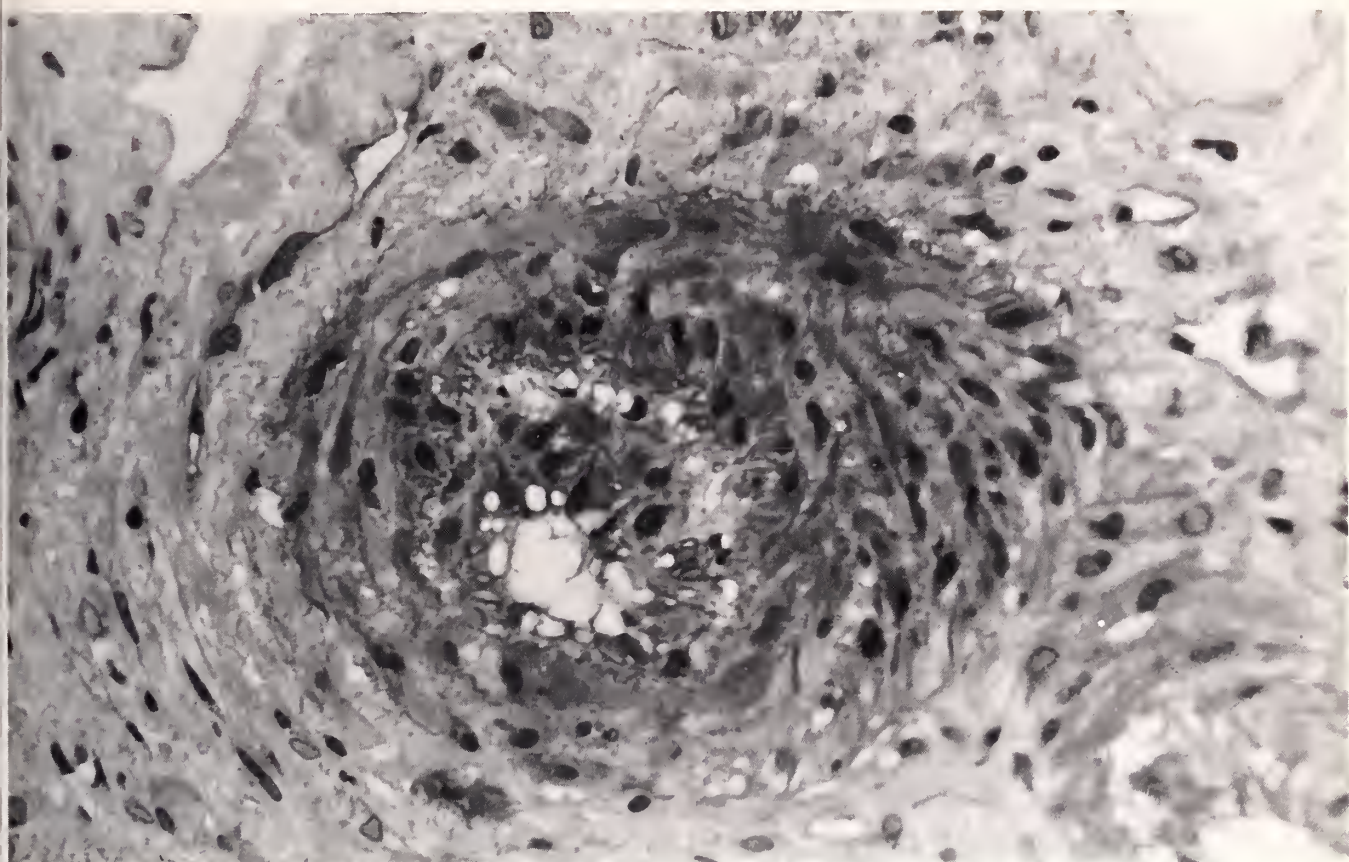


Fig. 2: Renal biopsy (×550): Similar medial and intimal proliferative lesions in a small renal artery.

negative for anti-HB_s and anti-HAV. Further, laboratory tests were negative for ANA, latex fixation, sickle cell prep and cryoglobulins. Immune complexes were not detected by the Clq method. Serum anti-GBM antibody was absent.

An electromyogram showed diffuse marked lower motor neuron dysfunction suggestive of anterior horn cell improvement or proximal neuritis. The findings of the EMG were thought to be compatible with a Guillain-Barre type syndrome.

A muscle biopsy of the gastrocnemius muscle (Fig. 1) showed marked fibromuscular thickening of the small and medium size arteries with necrosis. There was mild chronic inflammatory infiltrate in the perivascular areas with normal muscle fibers and interstitium. Hepatitis B antigen studies using an immunoperoxidase technique revealed no evidence of antigen deposit in the vessel walls.

A kidney biopsy obtained several days after initiation of steroid and cyclophosphamide therapy showed chronic inflammation of the arterial walls with intimal thickening sufficient to compromise vascular lumina (Fig. 2). Immunofluorescence microscopy revealed only scanty glomerular capillary C₃ and IgM deposits with no significant glomerular capillary basement membrane or mesangial lesions evident either by electron or light microscopy.

The patient's course was one of progressive renal failure. Approximately two weeks after admission, the BUN had risen to 128 mg/dl and the creatinine to 6.4 mg/dl. The patient became severely hypertensive with a blood pressure of 200/140 mmHg. The blood pressure was ultimately controlled with the use of propranolol, prazosin, minoxidil and peritoneal dialysis. A three-day course of intravenous methyl prednisolone, 750

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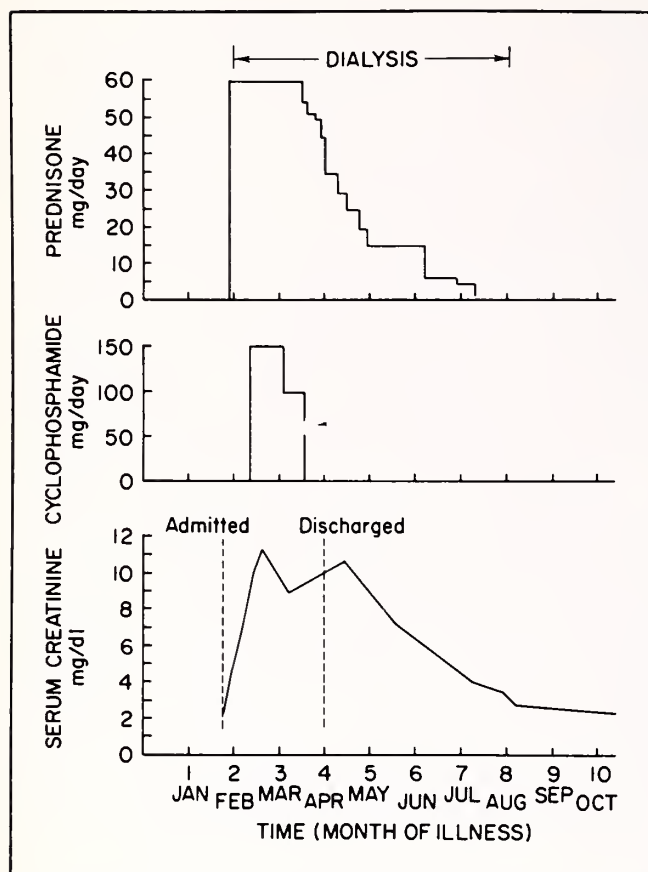


Fig. 3: Tapering of cyclophosphamide and prednisone and decrease in serum creatinine with therapy.

mg daily was then administered and followed by oral prednisone therapy, 60 mg/day. Cyclophosphamide, 150 mg/day, was added to the regimen approximately one week later. The patient began to expectorate bloody sputum and developed diffuse interstitial infiltrates bilaterally on chest x-ray. Both hemoptysis and pulmonary infiltrates resolved following removal of excess body fluid with dialysis. Because there was no improvement in renal function, an external blood access was placed and hemodialysis was initiated on a thrice weekly schedule. Although requiring crutches for ambulation, the patient was discharged after 10 weeks of hospitalization and out-patient dialysis was continued.

The patient's prednisone and cyclophosphamide dosages were tapered (Fig. 3). Approximately one month post-discharge, the patient was able to ambulate without any assistance. The liver function tests were normal as was the WBC count.

Therapy with maintenance hemodialysis was somewhat prolonged because of persistent fluid over-load problems; this in spite of adjunct furosemide administration. By six months after initiation of dialytic therapy, the patient's renal function had improved sufficiently (serum creatinine, 3.2 mg/dl) to allow cessation of dialysis and maintenance with medications only. Prazosin, propranolol, and furosemide are continued to the present for treatment of persistent hypertension and fluid retention. The patient is now totally functional without evidence of neuromuscular disability and his serum creatinine, 10 months after admission to the hospital, is 2.4 mg/dl.

Comments

As emphasized by Fauci,¹ the vasculitides represent a spectrum of disease ranging from hypersensitivity reactions to rapidly fulminant and fatal disease. Sergeant, et al⁵ reviewed nine patients with vasculitis and associated hepatitis B antigenemia and noted subclinical liver disease to be the only factor which separated such patients from those with generalized vasculitis without hepatitis B antigenemia. As noted by Trepo, et al,⁶ it is not clear why only a small number of patients with HBsAg/Anti-Hb_c circulating immune complexes develop vasculitis. Anti-HB_c was shown to be present in the sera of 35 of 38 patients with polyarteritis nodosa, irrespective of whether either HB_c or Anti-HB_c was present.

Leib, et al⁷ reviewed immunosuppressive and corticosteroid therapy of necrotizing vasculitis. His data suggested a better prognosis for patients treated with a combination of steroids and immunosuppressive agents than those receiving no therapy or corticosteroid therapy, alone. This was confirmed by Fauci, et al⁸ who reported that cytotoxic agents were successful in inducing remission in all the 17 patients with systemic vasculitis in his series.

Fever, weight loss, leukocytosis, elevated sedimentation rate and multiple organ system involvement pointed to severe necrotizing vasculitis in our patient and was confirmed by histological findings in muscle and kidney. He had particularly severe renal involvement with rapid onset of acute renal failure necessitating dialysis. The patient

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responded well to corticosteroid and immunosuppressive therapy in that his myopathy and hematological abnormalities resolved shortly after initiation of the therapy.

Partial resolution of his renal failure occurred after a prolonged period (six months), during which time he was maintained on thrice weekly hemodialysis. The patient now has mild renal insufficiency and persistent hypertension, but is otherwise completely functional and on no immunosuppressive drugs. To our knowledge, recovery of renal function after such a long interval has not been reported. Our case also suggests that the vasculitis may be a self-limited process and may not require indefinite therapy once the acute

episode has been brought under control with aggressive therapy.

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The Department of Pediatrics, University of Louisville School of Medicine is pleased to announce that Lewis A. Barness, M.D., will be the 1981 Distinguished Louisville Pediatric Society Lecturer on Wednesday, October 28, 1981, at Noon, in the Health Sciences Center Auditorium, Abraham Flexner Way. His presentation will be, "Nutrition in Older Children."

Current Diagnosis and Management of Blunt Thoracic Aortic Trauma

G.L. GRIFFITH, M.D., W.T. MATTINGLY, JR., M.D., E.P. TODD, M.D., PH.D.

It has been estimated that 10-15% of all fatalities occurring in auto accidents are caused by injuries to the thoracic aorta or its branches. Of all individuals who sustain traumatic rupture of the aorta, 30% will expire within six hours, 49% within 24 hours, 72% within eight days, and 90% within four months. During an eight year span, 21 patients came to our institution with injuries to the thoracic aorta or its proximal branches due to blunt trauma. Fourteen of these patients underwent immediate surgical correction. The remaining seven patients underwent individualized therapy or operation was postponed. This paper reviews current diagnosis of blunt traumatic injuries of the thoracic aorta and describes the results of the management of these injuries in our institution.

Introduction

IN 1979 there were 50,000 deaths due to motor vehicle accidents in this country.¹ It has been estimated that 10-15% of all fatalities occurring in auto accidents are caused by injuries to the thoracic aorta or its branches.^{2,3,4} Up to one-fifth of all individuals who sustain traumatic rupture of the aorta may be expected to survive at least temporarily.⁵ If immediate treatment is not undertaken, the prognosis for these initial survivors is grim. Thirty percent will expire within six hours, 49% within 24 hours, 72% within eight days, and 90% within four months if treatment is not initiated.⁶ Only 5% of survivors will live long enough for chronic aneurysm to develop.⁵

The medical literature contains numerous reports of thoracic-aortic injuries and their sequelae. One of the first cases of an aortic aneurysm, presumably the result of trauma, was reported as early as 1557 by Vesalius.⁷ In spite of the ability to recognize this condition, 400 years of technical development were required before Klassen was able to perform the first successful repair of a traumatically ruptured aorta.⁸ Although in initial

reports, operative mortality was high, subsequent series have reported survivals in the range of 70-80%.^{9,10}

This paper describes the diagnosis and current management of these critically injured patients, and presents the results of the University of Kentucky during the last eight years.

Material

During the years 1971-1979, 21 patients have presented to the University of Kentucky with injuries to the thoracic aorta or its proximal branches due to blunt trauma. All injuries were sustained in motor vehicle collisions with the exception of one pedestrian accident and one aircraft accident. Males comprise 81% of this series. The age range from eight to 81 years. Twenty patients had initial suggestion of mediastinal widening on chest X-ray. These patients commonly had other serious associated injuries. Twenty-eight percent of these patients were in shock on initial presentation which responded to fluid replacement.

Fourteen patients (Table I) underwent immediate surgical correction after establishing the diagnosis by aortography. Injury occurred at the isthmus in 10 of these patients. Eight required dacron grafts, while two were suture-repaired. Two patients had tears of the innominate artery at the

BLUNT THORACIC AORTIC TRAUMA—Griffith, Mattingly and Todd

TABLE I

Patient	Age	Sex	Time of Injury to Operation	Associated Conditions	Site of Injury	Operation	Result
1. R.B.	17	M	43 Hrs	Fracture (R) Tibia	Isthmus	(L) Thoracotomy Dacron Graft (L) Atrium (L) Femoral Bypass	Alive
2 J.W.	39	M	11 Hrs	Fracture (R) Humerus Facial Lacerations Pulmonary Contusion Respiratory Insufficiency Rib Fractures Retroperitoneal Hematoma	Isthmus	(L) Thoracotomy (L) Femoral Vein-(L) Femoral Artery Partial Bypass Dacron Graft	Alive
3. R.C.	17	M	12 Hrs	Fractured Pelvis	Isthmus	(L) Thoracotomy Dacron Graft (L) Atrium-(L) Femoral Artery Bypass	Alive
4. W.C.	26	M	20 Hrs	Fractured (L) Femur Fractured (L) Radius & Ulna Fractured Mandible	Isthmus	(L) Thoracotomy (L) Femoral A&V Bypass Primary Repair	Alive
5. C.B.	49	M	28 Hrs	Fracture (L) Tibia Colon Perforation	Isthmus	Exploratory Celiotomy with Colostomy (L) Thoracotomy Dacron Graft Heparinized Shunt	Expired POD #4
6. B.S.	45	M	10 Hrs	Cerebral Contusion	Isthmus	(L) Thoracotomy (L) Femoral A&V Bypass Dacron Graft	Alive
7. H.S.	74	M	24 Hrs	Fracture (L) Femur & Tibia Cerebral Contusion	Proximal (L) Sub-clavian		Alive
8. D.H.	22	F	16 Hrs	Renal Failure Paraplegia Ruptured Spleen Liver Laceration Pelvic Fracture	(L) Sub-clavian	(L) Thoracotomy (L) Femoral A&V Bypass Dacron Graft	
9. G.S.	25	M	8 Hrs	Multiple Rib Fractures (L) Hemopneumothorax	Isthmus	(L) Thoracotomy Heparinized Shunt Dacron Graft	Alive
10. J.O.	24	M	4 Hrs	Pulmonary Contusion	Avulsion origin of Innominate	Median Sternotomy Pericardiotomy Partial Occlusion Arch Dacron Graft	Alive
11. T.B.	52	M	12 Hrs	(R) Pneumothorax Flail Chest Pulmonary Contusion Renal Failure	Isthmus	(L) Thoracotomy (L) Femoral A&V Bypass Dacron Graft	Expired POD #2
12. N.C.	15	F	6 Hrs	Transection (R) Axillary A&V Transection (R) Brachial Plexus	Avulsion origin of Innomin.	Median Sternotomy Pericardiotomy Partial Occlusion Arch Dacron Graft	
13. W.R.	31	M	10 Hrs	Cerebral Contusion Retroperitoneal Hematoma Pelvic Fracture Hemothorax	Isthmus	Exploratory Celiotomy (L) Thoracotomy Heparinized Shunt Primary Repair	Alive
14. M.J.	21	F	36 Hrs	Fracture (R) Humerus	Isthmus	(L) Thoracotomy (L) Femoral A&V Bypass Dacron Graft	Alive

BLUNT THORACIC AORTIC TRAUMA—Griffith, Mattingly and Todd

arch, both requiring dacron grafts. An additional patient had a tear involving the proximal left subclavian artery requiring dacron graft, and the final patient had a tear of the arch proximal to the left subclavian which was repaired primarily. Two patients in this group subsequently expired, one due to sepsis and respiratory failure 40 days after repair, and the second on the first postoperative day due to renal failure and cardiac arrhythmia.

In seven patients (Table II) therapy was either individualized or operation delayed. Injury occurred at the isthmus in four patients, the ascending aorta in one patient, and the aortic arch proximal to the left carotid in two patients. In three patients the diagnosis was delayed due to associated injuries. Four patients were managed initially with antihypertensive therapy to minimize the chance of rupture. Therapy was successful in preventing rupture in all four patients. One patient subsequently underwent repair 10 days later, after stabilization of a cerebral contusion and retroperitoneal hemorrhage from a pelvic fracture. A second patient had a noncircumferential tear proximal to the left carotid, an associated closed head injury, pulmonary contusion with respiratory insufficiency and a cardiac contusion. He was followed for two years with antihypertensive therapy and repeat aortography. However, he died of a self-inflicted gunshot wound prior to planned elective repair.

A third patient, 81 years of age, sustained a non-circumferential tear of the arch proximal to the left carotid, severe pulmonary contusion with respiratory insufficiency and a cardiac contusion. She was managed for 20 days with antihypertensive medication prior to succumbing to sepsis, respiratory failure, and cardiac arrhythmias. Another patient has been followed for five years with no expansion in a small sacular aneurysm. The survival for this series was 86% both in the immediate and individualized therapy groups.

Discussion

Most traumatic ruptures of the aorta occur in violent accidents during which the victim undergoes sudden deceleration either in the vertical or horizontal plane combined with mechanical compressive forces, rotational torsion and/or sudden

flexion. Combination of geometric forces acting primarily at points relative fixation exert stress sufficient to disrupt the aorta at predictable locations.

The most common locations of aortic injuries are; the descending aorta distal to the left subclavian, the ascending aorta proximal to the origin of the innominate, the origin of the innominate from the aortic arch, the distal descending thoracic aorta at the diaphragmatic hiatus, the mid-portion of the descending thoracic aorta, and the aorta at origin of the left subclavian artery. Ruptures occurring at the aortic isthmus, that portion between the left subclavian and ductus diverticulum, comprise up to 50% of the ruptures.¹¹ In our series, this location accounted for 71% of the tears. In the literature, tears occurring in the ascending aorta are second in frequency to ruptures at the isthmus, presenting in 11-33% of cases,¹² while the remainder of sites, comprise 20-30%. In our series, the ascending aorta proximal to the innominate was an unusual site, accounting for only 5%. Injuries to the innominate, transverse arch and proximal left subclavian were the more frequently seen sites. (Table III)

These patients frequently present complaining of retrosternal or interscapular pain which is thought to be caused by stretching or dissection of the adventitia. Dyspnea, stridor and hemoptysis may also comprise part of the clinical picture, due to associated injuries to the bronchopulmonary tree or due to hematoma or pseudoaneurysm involvement of the trachea, bronchus, or pulmonary parenchyma. Hoarseness may result from stretching or injury to the recurrent laryngeal nerve. Compression of the esophagus by hematoma can produce dysphagia. Swelling at the base of the neck may indicate hematoma dissection up the innominate and carotid vessels, facial plethora may reflect compression of the superior vena cava or impending tamponade from an ascending aortic aneurysm slowly leaking into the pericardium.

Examination in one-third to one-half of the patients with traumatic aortic injuries may fail to reveal external evidence of thoracic injury at the time of initial examination.⁹ In others, degrees of evidence of chest trauma in the form of abrasions,

BLUNT THORACIC AORTIC TRAUMA—Griffith, Mattingly and Todd

TABLE II							
Patient	Age	Sex	Time of Injury to Operation	Associated Injuries	Site of Injury	Operation	Result
1. H.N.	64	M	46 Days	Congestive Failure	Ascending Aorta	Total Cordiapulmonary Bypass Aortic Valve Replacement Primary Closure	Alive
2. D.G.	20	M	10 Days	Fractured Pelvic Pulmonary Contusion Cerebral Contusion Retroperitoneal Hematoma	Isthmus	Exploratory Celiotomy (L) Thoracotomy with Primary Repair (L) Femoral A & V Bypass (L) Thoracotomy (2) (L) Femoral A & V Bypass, Dacron Graft 2nd Tear	Alive
3. O.I.	59	M	6 Years	NONE	Isthmus	(L) Thoracotomy (L) Femoral A & V Bypass Dacron Graft	Alive
4. W.H.	51	M	20 Years	NONE	Isthmus	(L) Thoracotomy (L) Femoral A & V Bypass	Alive
5. R.V.	28	M	—	Facial Lacerations Pulmonary Contusion Myocardial Contusion Cerebral Contusion Renal Failure Sternal Separation	Ascending Aorta Distal to Inn.	NONE	Alive
6. J.H.	8	M	—	NONE		NONE	Alive
7. P.S.	81	F	—	Flail Chest, Pulmonary Contusion, Facial Fracture, Fracture (L) Humerus, Renal Failure Resp. Failure	Isthmus	NONE	Expired DOD #22

contusions, crepitation due to sub-cutaneous emphysema, unstable ribs, sternal, or clavicular fractures may be present. A harsh murmur over the precordium or posterior interscapular area may be observed in up to 30% of the victims.¹¹ There may be the acute onset of hypertension in the upper extremities in 31-43% of patients due to compression of the aortic lumen caused by peri-aortic hematoma formation. This may be an effect produced by stretching or stimulation of the cardiac plexus located in the vicinity of the aortic isthmus.⁹ Examination of the pulse amplitudes in the upper and lower extremities may suggest the presence of an "acute coarctation syndrome" caused by a ball valve action of the dissected intima. The lower extremity pulses may be dimin-

ished or altogether absent. This finding has been noted or occurred in as many as 37% of the patients according to Symbas.¹¹ The absence or diminution of pulses in the right or left upper extremities may alert one to injuries involving the innominate and left subclavian arteries respectively. Due to the frequent occurrence of major associated neurologic, orthopedic and abdominal injuries, the examining physician must take great care to avoid overlooking these subtle signs which may indicate serious intrathoracic injuries.

The initial evaluation of these victims of blunt chest trauma includes a roentgenograph of the chest. There are a number of findings on this x-ray which would lead one to suspect aortic injury. The most commonly noted finding is that of a

BLUNT THORACIC AORTIC TRAUMA—Griffith, Mattingly and Todd

TABLE III
SITE OF AORTIC INJURY

Isthmus	66.7%
Innominate	9.5%
(L) Subclavian	9.5%
Ascending Aorta	4.8%
Transverse Arch	9.5%

TABLE IV
RADIOGRAPHIC SIGNS

- Wide mediastinum (greater than 8 cm. on 100 cm. AP film)
- Displacement of trachea to right
- Narrowing of coronal angle with displacement of left mainstem bronchus below 40°
- Irregularity of aortic knob contour
- Loss of sharpness of knob or aortic outline
- Opacification of aortopulmonary window
- Left apical pleural cap
- Displacement of adventitia from calcified intima by more than a few millimeters

TABLE V
RADIOGRAPHIC SIGNS

- Presence of left pleural effusion without evidence of rib fractures
- Fractures of sternum or first rib
- Posterior displacement of the clavicle
- Displacement of NG tube to the right
- Deviation of esophagus to the right on barium swallow

widened mediastinum, 8 cm or greater on a 100 cm. AP film. A number of other helpful radiographic signs as depicted in tables 4 & 5 have been described. However, it should be borne in mind that the absence of these signs **does not** rule out the possibility of a significant aortic injury.

Appelbaum¹³ reported that 28% of the patients in his series presented with normal chest x-ray on admission. Therefore, subsequent chest x-ray in the post-injury period are important in discovering delayed presentation of significant aortic injuries. Once aortic injury is suspected, the only definitive means for establishing the diagnosis of acute aortic rupture is aortography.

The successful management of patients with traumatic injuries to the thoracic aorta, in general

relies upon promptly recognizing the condition, establishing the diagnosis and with aortography proceeding with definitive surgical treatment.

Various techniques have been described to temporarily bypass the involved aortic segment and provide distal perfusion during surgical repair. These include left heart bypass, femoral vein-femoral artery partial cardiopulmonary bypass, and the use of the heparin bound shunts.^{14,15} In the series reported here each of these techniques has been used successfully.

In a select group of patients, the presence of additional severe injuries or circumstances may mandate the use of temporizing measures until the patients' condition stabilizes, or more imminently life threatening injuries have been satisfactorily managed. As previously reported from this institution, these patients can be managed successfully using antihypertensive regimens to lower blood pressures and decrease the velocity of the systolic ejection pressure, thus limiting pseudoaneurysm formation and aortic dissection.^{16,17} This approach has been successful in preventing aortic rupture in the four patients in this series, in whom associated factors precluded immediate surgical repair.

Our current regimen consists of the initial administration of a sodium nitroprusside drip to maintain a systolic pressure in the range of 90-120 mm Hg. Intravenous Inderal is administered as needed to maintain the heart rate in the 70-80 BPM range. Once the patient begins to stabilize he is usually converted to Aldomet and Inderal which may be given intravenously or orally, as needed. When the associated injuries stabilize surgical repair is undertaken.

Based on the experience in this group of patients where definite surgery has required delay, all patients with suspected aortic trauma now are carefully managed with antihypertensives at least until definite aortography is complete.

In summary, the key to successful management of patients with blunt traumatic injuries to the thoracic aorta relies upon the prompt recognition of the condition and early operative intervention when possible. There exists a select group of patients in whom extenuating circumstances or more imminently life threatening injuries preclude im-

BLUNT THORACIC AORTIC TRAUMA—Griffith, Mattingly and Todd

mediate surgical intervention. These patients may be successfully managed initially with currently available antihypertensives, until more favorable circumstances exist for surgical repair.

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Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
 Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
 Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
 Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

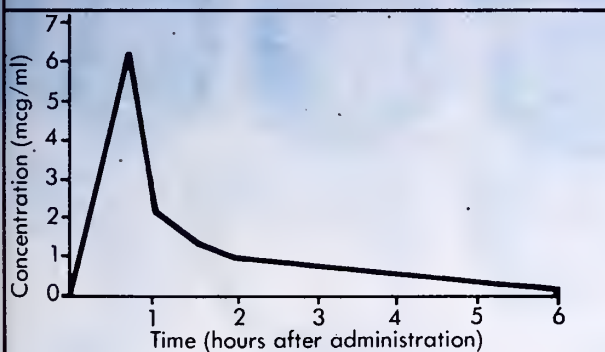
*Dosage should not result in a dose higher than that for adults.

†depending on severity

**Half the dose
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compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.[†]

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

[†]Due to susceptible organisms.

See important information on facing page.

- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T_{1/2} values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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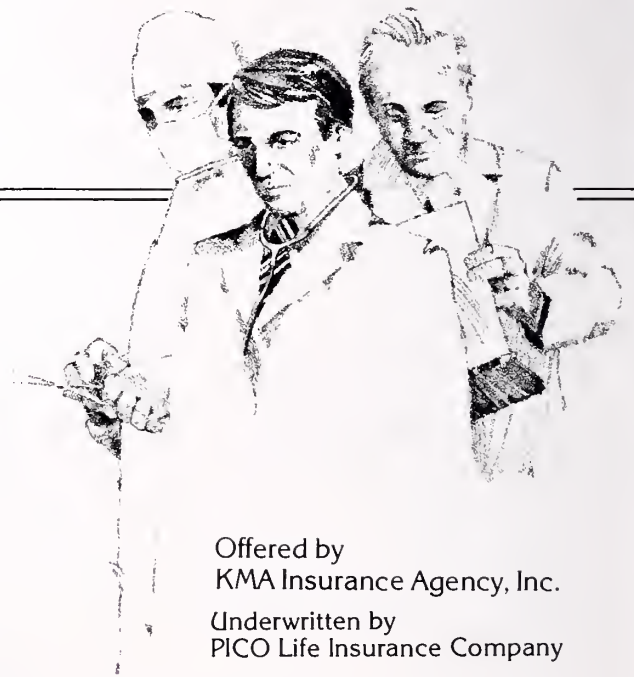
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Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and on other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow CNS stimulants e.g., caffeine, Metrazol or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped and re-institution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSEAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's, although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate in the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g., driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 600 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSEAGE: SYMPTOMS: The manifestations of serious overdoseage with propoxyphene are similar to those of narcotic overdoseage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdoseage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity (jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis and myocardiopathy have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone, nalorphine, and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably i.v., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures. Antiepileptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdoseage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977). Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Surgical Sequelae of Radiation-Induced Enteropathy

R. B. Galland, M.B., F.R.C.S.

Ionizing radiation is becoming a common mode of therapy in the management of many malignant diseases, particularly those occurring within the abdomen and pelvis. Unfortunately, surrounding normal tissue can also receive harmful radiation doses during the period of treatment. This paper describes some of the lesions produced in the gastrointestinal tract that are surgically important. The progressive nature of the disease is emphasized and methods of avoiding injury are described. Corrective surgery is hazardous in the presence of radiation injury and methods by which the high postoperative morbidity and mortality can be reduced are discussed.

Introduction

This paper discusses the management of radiation-induced enteropathy as it presents to the surgeon. Common problems such as malabsorption, uncomplicated enteritis and colitis, and proctitis, which have been estimated to occur in over 75% of patients undergoing radiotherapy,¹ usually do not require surgical management and will not be considered here.

Current estimates suggest that 50% of patients with malignant disease will, at some time during treatment of that disease, undergo radiation therapy, many with the hope of a permanent cure.² However, these benefits are being achieved at the cost of a wide range of side effects that can lead to protracted morbidity and, ultimately, death many years after the initial tumor has been controlled.

All tissues are radiosensitive to a greater or lesser extent and the damage to a particular tissue in relation to the dose of radiation given follows a predictable curve.² The gap between the tumor control curve and the curve for major compli-

cations in the Figure gives an indication of whether it is feasible to undertake radiotherapy for that particular tumor.

The gut is particularly susceptible to radiation; the duodenum and jejunum being the most sensitive organs, followed by the ileum, stomach, colon and rectum.³ The mechanism of the injury produced is twofold. First, there is the direct effect of ionizing radiation on the gut wall itself which occurs during or shortly after the course of radiotherapy. Secondly, the radiation insult produces an indirect ischemic effect either early (due to acute vascular endothelial damage or thrombosis) or late (due to a progressive obliteration vasculitis).^{4,5}

The site of injury to the bowel is usually predictable and is dependent on the site of the original lesion and the locations of the radiotherapy portals. Since radiotherapy that is likely to damage bowel is usually undertaken for pelvic malignancies it follows that the rectosigmoid and distal small bowel are the areas most commonly damaged. The rectum is particularly vulnerable to injury when intracavitary treatment is applied for carcinoma of the cervix.³ Although early reports suggested that injuries to the large bowel occurred

Grand Rounds

TABLE: Outcome of resection and end-to-end anastomosis for surgical management of radiation enteritis

Author		Number of Cases	Anastomotic "leaks" (%)	Mortality (%)
Swan et al ²⁸	1976	{ 199	36	21
		45	65	53
Deveney et al ²⁹	1976	34	25	12+
Margenstern et al ³⁰	1977	50	"Frequent"	"High"
Cram et al ³¹	1977	31	50	35
Russell et al ³²	1979	40	31	28
Dietl et al ³³	1979	38	41	19
Galland et al ⁶	1979	37	48	45

more often than injuries to the small bowel, it now appears that this was a misconception since small bowel injuries have a longer latent period for development and there is a similar incidence of large and small bowel injuries.⁶

Although less well-documented than either large or small bowel injuries, esophageal and gastric damage producing dysphagia, ulceration and delayed gastric emptying occurs when those structures are within the radiation field.^{7,8}

Case Report

A 58-year-old white woman presented as a surgical emergency with a two-day history of abdominal distension, vomiting and constipation. Plain abdominal radiographs confirmed the presence of small bowel obstruction and conservative therapy was started. She had previously had an appendectomy as well as a course of external and internal radiotherapy for a Stage II carcinoma of the cervix five years before she developed the small bowel obstruction. During the radiotherapy she had experienced some nausea and vomiting, but had no other complaints besides vague colicky abdominal pain which had been present for about a year prior to this admission.

The patient's intestinal obstruction failed to resolve and the day following admission a laparotomy was undertaken. A stricture of the terminal ileum was noted to be the cause of the obstruction and a right hemicolectomy was undertaken and a primary anastomosis performed. There was no evidence of any intraabdominal malignancy. His-

tologic examination of the specimen showed mucosal atrophy, submucosal edema and fibrosis and an obliterative arteritis compatible with radiation-induced enteritis.

Four days following this her anastomosis dehisced and an ileostomy and mucus fistula were created as an emergency. Her condition gradually improved and she was ultimately discharged. Three months later the ileostomy and mucus fistula were closed operatively.

In the past four years the patient has remained well, although a barium follow through undertaken for the investigation of intermittent abdominal colicky pain has revealed a further area of strictured bowel proximal to the original anastomosis.

Some of the important features of this case will be discussed below.

Gastrointestinal Injuries Sustained

The major sequelae of radiation-induced injuries encountered by the surgeon are uncontrolled bleeding from an area of ulcerated mucosa, perforations, fistulae and strictures. Less commonly a patient may present with chylous ascites due to stricture formation within the abdominal lymphatics⁹ or with a radiation-induced carcinoma occurring within the irradiated bowel.¹⁰

Bowel perforation, when due to direct damage to the gut wall, presents either during the course of radiotherapy or shortly after it is completed. When a patient presents with a perforation many months or years following the treatment it is

Grand Rounds

usually due to perforation of irradiated bowel proximal to a radiation-induced stricture.

Mild hemorrhage commonly occurs associated with a radiation colitis or proctitis and usually resolves spontaneously following supportive therapy. Severe hemorrhage, usually due to a rectal ulcer following prolonged intracavitary therapy, may require blood transfusion and possibly surgical intervention. Such hemorrhages usually occur within a few months after the radiation treatment is completed.

Strictures have the longest latent period of presentation.⁶ They have been documented to occur many years following radiation therapy; indeed, the initial treatment may have been forgotten by the patient.

Apart from early enteritis or colitis which usually resolves rapidly following completion of the radiotherapy the progression of radiation enteropathy is relentless and patients may present with multiple lesions occurring either synchronously or metachronously (as illustrated in the case report).

Factors Predisposing to Radiation Injury

1. Excessive Irradiation

The incidence of bowel injury directly correlates with radiation dosage, *eg*, the incidence of small bowel injury increases from 1% to 5% for 4500 rads to 25% to 50% with 6500 rads.¹¹ Early reports of injuries to the gut by radiotherapy described large numbers of patients who had received excessive irradiation compared to current standards. However, we found that only 8% of the patients in our series⁶ had had excessive irradiation. Nevertheless, high-dose irradiation to surrounding tissues may be unavoidable in treating large or recurrent tumors when it is necessary to balance the risks of radiation complications against further tumor extension.

2. Factors in Patients' Past History

The role of previous abdominal or pelvic sepsis or operations in predisposing patients to radiation injury is controversial. Theoretically, gut that is immobilized by adhesions may be retained within a radiation field and thereby receive excessively high doses. Clearly, this is likely to be relevant only to those parts of the gut that are normally mobile, such as the jejunum, upper and mid-ileum

and perhaps the transverse and sigmoid colons. There is some evidence to suggest that patients who have had previous sepsis or surgery are more susceptible to radiation damage.^{6,12-14} However, in barium studies performed on patients scheduled to receive radiotherapy, Green *et al*¹⁵ found no difference in gut mobility in patients who had had previous pelvic operations when compared to those who had not.

Any disease associated with vascular occlusion might be expected to potentiate the effect of obliterative vasculitis.^{14,16} DeCosse *et al*¹³ observed a significantly higher proportion of hypertension, atheroma and diabetes mellitus in patients sustaining radiation injury to the bowel than in those who did not. Age and previous pelvic inflammatory disease did not appear to be relevant factors either in predisposing patients to injury or in predicting injury.

The patient's sex and body build have also been incriminated.¹⁴ Women tend to be more readily injured than men and thin patients more disposed to injury than the obese. Additionally, Green¹⁵ found that thin, elderly, female patients had a higher incidence of relatively immobile small intestine and a deeper pelvic cul-de-sac.

3. Combined Chemotherapy

In both experimental and clinical situations, combined chemotherapy has been shown to enhance the effect of radiotherapy on tumors. Unfortunately, chemotherapeutics may act as radiosensitizers to surrounding tissues, and this may explain in part why children who receive actinomycin D and radiotherapy experience such severe acute reactions.¹⁷

It has been suggested that 5-fluorouracil, when combined with radiotherapy to treat advanced gastrointestinal malignancy, causes an increase in both early and late gastrointestinal side effects.^{18,19} Whether this will be confirmed by controlled trials remains to be seen.

It is difficult to assess the relative importance of any or all of these factors. Attempts to predict subsequent injury by use of a computer program have shown that hypertension, aesthetic build and previous multiple laparotomies appeared to be the most important of the nine factors examined. Furthermore, it may be that the multiple factors

Grand Rounds

have a synergistic effect on one another with vascular impairment being the final common pathway.²⁰

Management of Radiation Injury to the Gut

1. Prevention

a. Modifications of Radiotherapy Technique

Alteration of time:dose characteristics with onset of acute radiation problems, rotational techniques, multiple fields, and selective shielding are all capable of reducing late radiation problems.² It is possible to deliver a precise dose of radiation to a tumor by combining radiotherapy with computerized tomography. Placing radiopaque markers around a tumor or tumor site at the time of operation also aids localization.

Green¹⁵ found that it was possible to displace bowel from the proposed radiation field by altering the position of the patient. When this technique failed Green reduced field size and/or total dosage. The initial results of this study showed a reduction in the number of bowel-related problems that did not compromise the patients' therapy.

Distention of the bladder prior to irradiation has also been suggested as a method to displace the small bowel from the radiation field.²¹

b. Obliteration of Dead Space

Obliteration of intraabdominal or pelvic dead space may prevent bowel from migrating into an area of excessive irradiation, *e.g.*, by closing the peritoneum over the pelvic floor after an abdominoperineal resection,¹⁵ or obliterating the pelvic cul-de-sac by suturing bladder, omentum or broad ligament to the abdominal walls and retroperitoneal space.²²

c. Radioprotection

Experimentally a number of chemicals have been used in attempts to protect against radiation damage, but these substances are themselves toxic. However, combinations of these agents in lesser doses, *eg.* thiourea compounds combined with cysteine, glutathione or serotonin have been shown synergistically to increase the protective effect of the agents used singly with simultaneous reduction of toxicity.²³ Little work has been undertaken in the clinical situation although from a largely retrospective study, Brohult et al²⁴ suggests that alkoxyglycerols may reduce enteropathy fol-

lowing radiation treatment for carcinoma of the cervix.

2. Conservative Management

Unless patients present as emergencies that require immediate operative intervention, it is important to correct any electrolytic or nutritional impairment while further assessing the cause of the presentation. In particular, one needs to establish whether the patient has a single lesion or multiple lesions and whether they are in fact presenting with a recurrence of their original disease.

3. Operative Management

Although less than 2% of patients who receive radiotherapy will require operative treatment,²⁵ the surgeon is presented with numerous problems. These are due mainly to the poor capacity of irradiated bowel to heal and to the difficulty in differentiating undamaged bowel from that which appears normal clinically, but which is microscopically injured.²⁶ Bowel that is obviously damaged is pale and thickened with loops that are matted together and are often friable.

Rectovaginal fistulae are particularly difficult to treat, since low lesions are not suitable for excision to be followed by anterior resection and "pull-together" operations, as described for children with Hirschsprung's disease. Diversion of fecal contents by a proximal colostomy will leave the patient with a persistent mucus discharge, pain, tenesmus, and a potential site for infection. Parks et al²⁷ have described a per-anal "sleeve" anastomosis whereby healthy colon is drawn through the rectum from which the mucosa has been stripped and is anastomosed to the anal canal at the level of the dentate line. The fistula is left *in situ*. Early results of this technique appear to be encouraging.

Resection of gut, followed by end-to-end anastomosis, has resulted in an anastomotic dehiscence rate of about 50% and a correspondingly high rate of postoperative mortality (Table). Therefore, a number of alternative operations have been described including simple diversion of bowel contents, bypass of radiation-induced lesions²⁸ and bypass combined with exclusion of the affected segment of bowel.³⁴

Clearly, the precise procedure undertaken will depend upon the circumstances of each particular

Grand Rounds

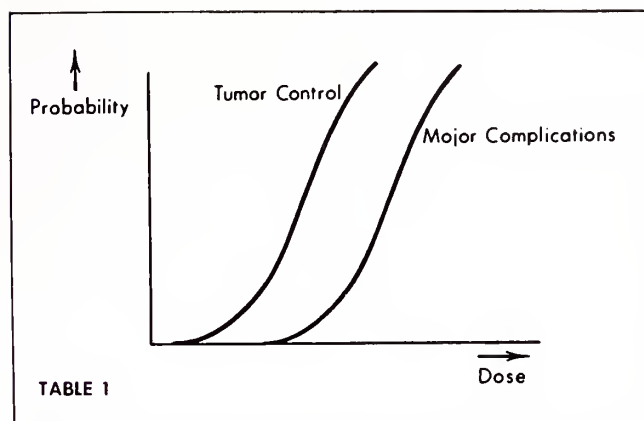
case. However, general guidelines have evolved in attempts to reduce postoperative morbidity and mortality. The operative incision should, if possible, be placed in skin that has not been irradiated. Even with super-voltage radiation some injury to overlying skin is inevitable and can result in the delay of subsequent healing.

The ideal procedure is **wide** resection of the irradiated segment followed by end-to-end anastomosis. Swan et al²⁸ advocated bypass and side-to-side anastomosis as the treatment of choice, having found that it yields a lower dehiscence rate than occurs after end-to-end anastomosis. Russell and Welch³² failed to confirm this. Its apparent advantage may be because, for technical reasons, a side-to-side anastomosis will probably be undertaken farther away from the original lesion than an end-to-end anastomosis following a short resection. The former may be more often undertaken in unirradiated bowel. Furthermore, a bypass has the disadvantage of leaving within the abdomen diseased bowel that may later perforate or fistulize.

Unless the circumstances are ideal, *ie*, the absence of peritoneal contamination or obstructed bowel, performance of the end-to-end anastomosis should be delayed and the patient left with a temporary ileostomy or colostomy and mucus fistula. If an ileostomy or colostomy are to be constructed, either temporarily or as the definitive procedure, they should be undertaken in bowel away from the radiation field. A longer-than-usual length of gut should be exteriorized, since retraction and stenosis occur commonly under these circumstances. Although frozen section is often suggested as a means of identifying viable gut prior to performing an anastomosis, there is little evidence that it is a feasible proposition.

It is obvious that since irradiated tissues heal so poorly, multiple resections and anastomoses should be avoided. Similarly, extensive dissections perhaps resulting in inadvertent damage to adjacent bowel, should not be attempted and it is in these circumstances that a bypass procedure is the operation of choice.

Enterotomies undertaken to decompress obstructed bowel should be resected along with the original lesion. No attempt should be made simply to suture them. Long intraluminal tubes are good



Theoretical dose-response curve for tumor control vs. major complications. (After Bloomer WD, Hellman S: Normal tissue response to radiation therapy. *N Engl J Med* 293:80-83, 1975. Reprinted with permission.

alternatives as a form of decompressing the bowel either at operation or postoperatively.

An omental pedicle wrapped around the anastomosis may help to prevent leakage. Using such a technique Palmer³⁵ described only two leaks out of 31 anterior resections for irradiation-induced rectal strictures.

Finally, although there are occasional cases described where only simple division of adhesions has been required, care should be taken to exclude a stricture as the actual obstructing lesion. Adhesions not producing an obstruction should be left intact since in any surgical procedure the bowel wall may be unknowingly breached or a marginal blood supply further compromised. This perhaps may account for the occasional bowel perforation that occurs near an anastomosis in the early postoperative period.⁶ The instillation of methylene blue or saline into the bowel through an intraluminal tube has been recommended as a means of revealing a suspected bowel tear.³⁰

Conclusion

Though the prognosis for those patients who develop acute radiation effects is generally good it is much more gloomy for those who develop late complications and careful follow up and management is needed for this latter group. The current clinical evidence indicates that modifications of radiotherapy with adjunctive techniques is the best means of preventing injury.

Grand Rounds

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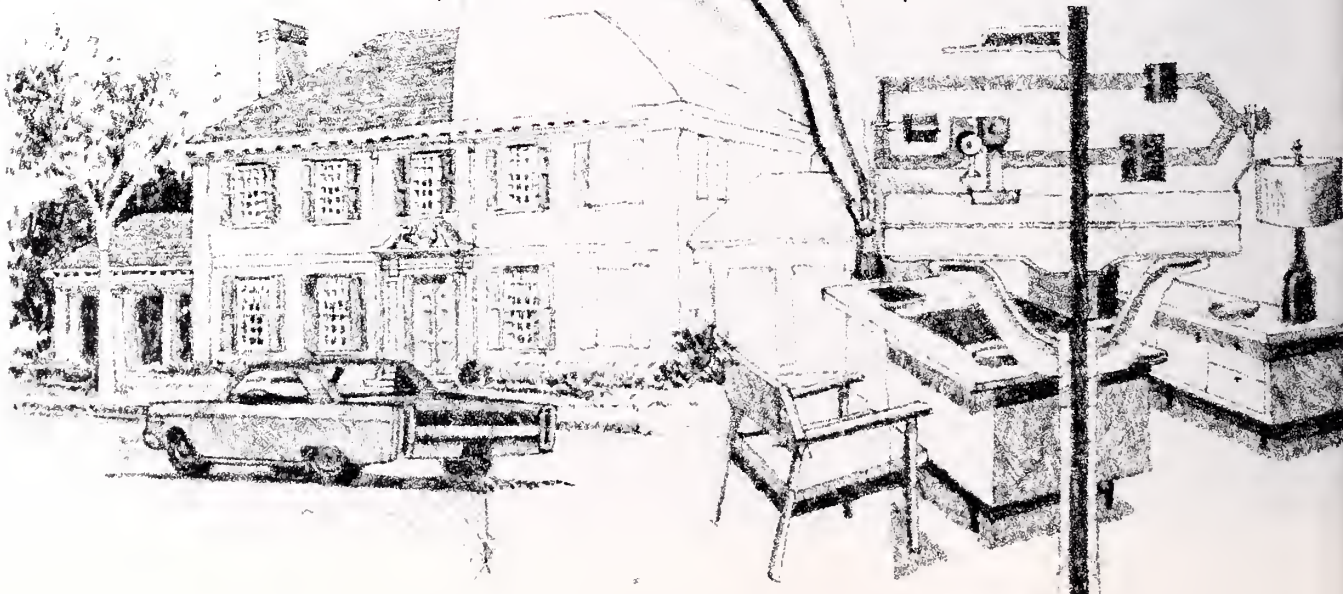
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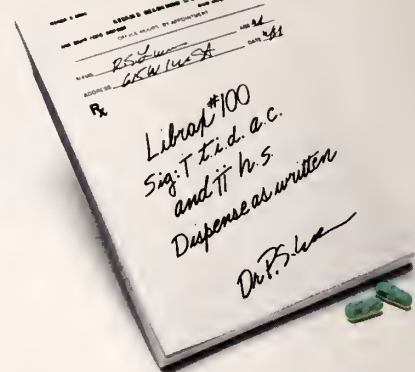
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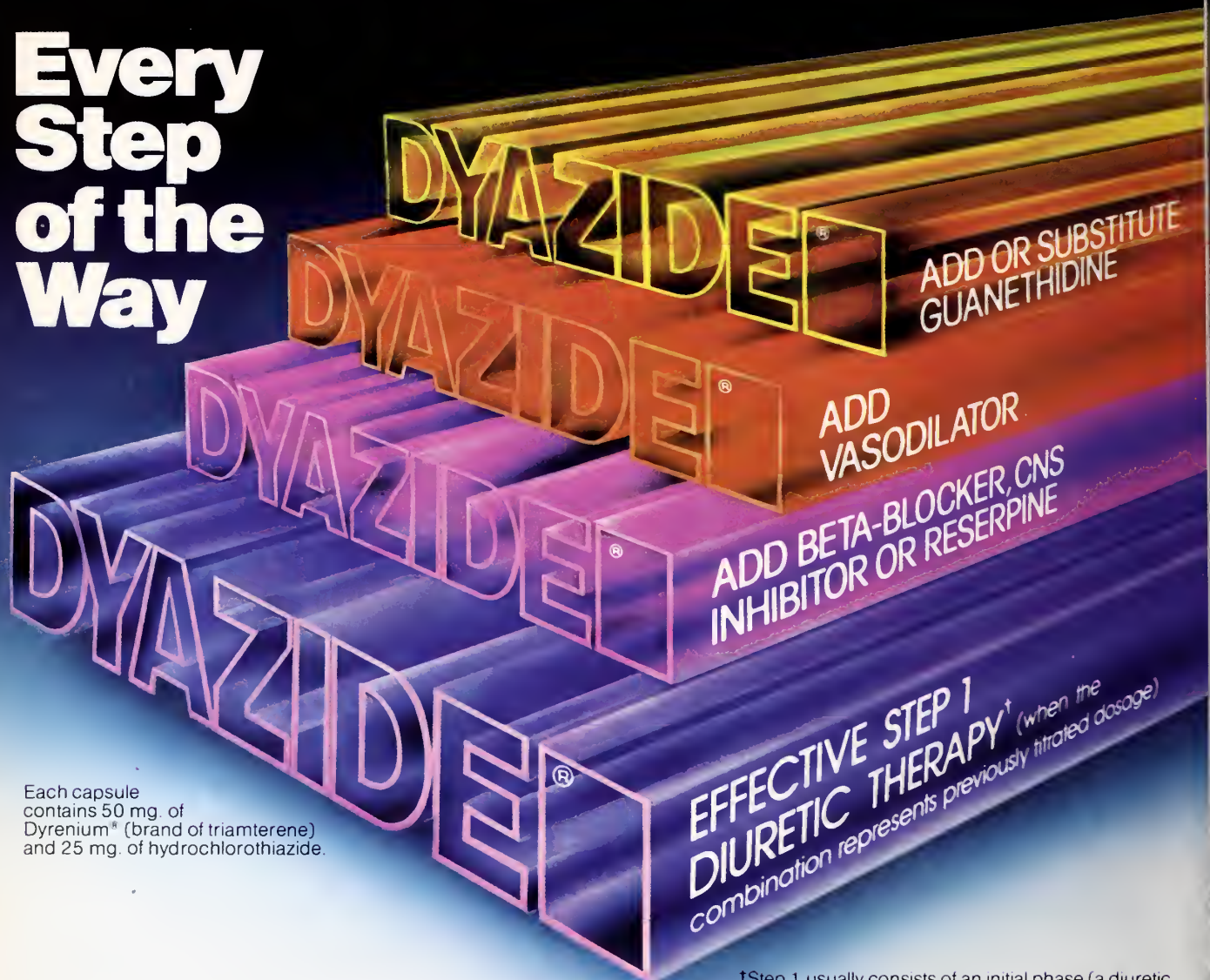
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Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and

triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently, both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak lactic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased

dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

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The Medical Market Place

“CONSUMER choice” and “price competition” have become popular phrases in discussions of medical costs. Under a legislated system of “consumer choice—price competition” employers would offer alternative health plans to employees; health providers would be encouraged to provide services at lowest possible cost. The expected outcome of this system would be a reduction in health care costs, improved access to medical care and maintenance of quality care. Assurance that all these objectives can be met under proposed legislation is questionable.

Price competition affects many areas of health care delivery; it has particular significance for the academic institutions and their teaching hospitals. Recently a paper developed by the American Association of Medical Colleges addressed the subject of price competition as it relates to university hospital programs.

The thesis of the AAMC document, briefly stated, is that university hospitals are at a distinct disadvantage in a strict price competitive market place. The reason is not difficult to understand. Whereas the function of the typical community hospital is patient care, the products of the teaching hospital are multiple, including undergraduate and graduate medical education, allied health sciences education, applications of research, a large tertiary care patient population, ambulatory care, and in many instances a large indigent patient population. Consequently, the costs of teaching hospitals are generally higher than those of non-teaching institutions.

It is of importance to note that the multiple product role concerns not only the primary university teaching hospitals, but also an ever increasing number of affiliated teaching hospitals and their staffs who today contribute an essential role in undergraduate and graduate medical education. Under a system of price competition would these hospitals and physicians be forced to sever their relationships with the parent institution? If so, emerging physicians may fail to gain proper perspective of total health care delivery.

How will teaching hospitals and their affiliates effectively compete for health care dollars if legislators and economists ignore the multiple product role of these institutions? One oft repeated suggestion involves separate payment for each of the unique functions of an academic medical center. While such a proposal ostensibly has merit, a variety of negative results might occur, including increased regulatory constraints.

Effective response to the problem of health care costs is no simple task. What must be expected of those involved in the decision making is maximum concern for the preservation of **quality** health care and preservation of the system of unparalleled excellence in medical education. Innovation is in order.

G. Randolph Schrodtt, M.D.

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Mohs' Chemosurgery For Skin Cancer, Microscopically Controlled Excision

Michael W. McCall, MD, Hugh T. Greenway, MD and Frederic E. Mohs, MD

Mohs' chemosurgery over the years has proved to be an excellent treatment for skin cancer. This technique may provide the most reliable method for treating basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). It also may be used in the treatment of malignant melanoma, erythroplasia of Queyrat, dermatofibrosarcoma protuberans, lip cancer and other cutaneous neoplasms.

Complete microscopically controlled excision, chemosurgery, was first used by Doctor Frederic Mohs in 1936.⁸ He used zinc chloride for *in situ* tissue fixation. This permitted layer by layer excision of tumors guided by microscopic examination of frozen sections. In 1953 Doctor Mohs began omitting the fixation for small lesions, especially in the periorbital areas. This was done because of the chemical irritation to eyes caused by the fixative. Over the years the fresh tissue technique, omitting the fixative, has been increasingly used with excellent success. The fixed tissue technique, using the zinc chloride fixative, provides for more accurate microscopically controlled excision of extensive complicated cancers, especially those involving bone. It is also used for malignant melanoma and tumors in highly vascular areas, *ie*, erectile tissue. The fresh tissue technique is less painful, more rapidly done, often permits immediate repair and provides the same accurate microscopic control.

Fixed Tissue Technique

The fixed tissue technique was developed after Doctor Mohs, as a research assistant, noted that 20% zinc chloride injected into experimental animal tumors caused *in situ* tissue fixation.⁷ The zinc chloride is incorporated into a paste that allows controlled release of the fixative so the physician can accurately control its penetration.

The main mass of tumor to be treated by this technique is initially surgically removed, except for melanomas. Dichloroacetic acid (DCA) is used to control bleeding and to make the keratin barrier of the surrounding skin permeable to the zinc chloride fixative.

The fixative is then applied and allowed to penetrate for four to 24 hours. After fixation is completed, a thin layer of tissue is removed and divided into specimens of manageable size. The borders of the specimens are then dyed red, blue or black and a corresponding map drawn so precise anatomical relations are preserved. The specimens are then cut horizontally across the undersurface on a freezing microtome or cryostat. This is done so that the specimen borders and entire undersurfaces may be examined. These are then examined under the microscope and any areas of residual tumor are exactly located on the map. Only the areas of residual tumor are excised. This process is repeated until a tumor-free plane is reached. The surgical defect may be closed after the final layer has separated or it may be allowed to granulate in. The wound healing is excellent. The fixed technique has the advantage of providing a bloodless area in which to work even in the highly vascular areas (see figure 1).¹³

In the treatment of melanomas the fixative is used prior to each excision including the initial one. This prevents any seeding of tumor during the excisions. After a tumor-free plane is reached an additional layer of tissue is taken, the extent of which depends on the invasiveness of the melanoma and its location. This is done to remove any microscopic satellites. In this manner the maximal amount of tissue is preserved and the tumor is completely excised.^{11,13,15}

Fresh Tissue Technique

The fresh tissue technique is done in the same manner as the fixed technique except the fixative is not used prior to the excisions. After a local anesthetic is injected into the area, the tissue is excised. The mapping, specimen dying, laboratory processing and microscopic examination are the same as for the fixed technique. The fresh technique allows for multiple microscopically controlled excisions to be done in one day. It eliminates the discomfort of the fixative penetration and permits added conservatism in cosmetically and functionally important areas. The surgical

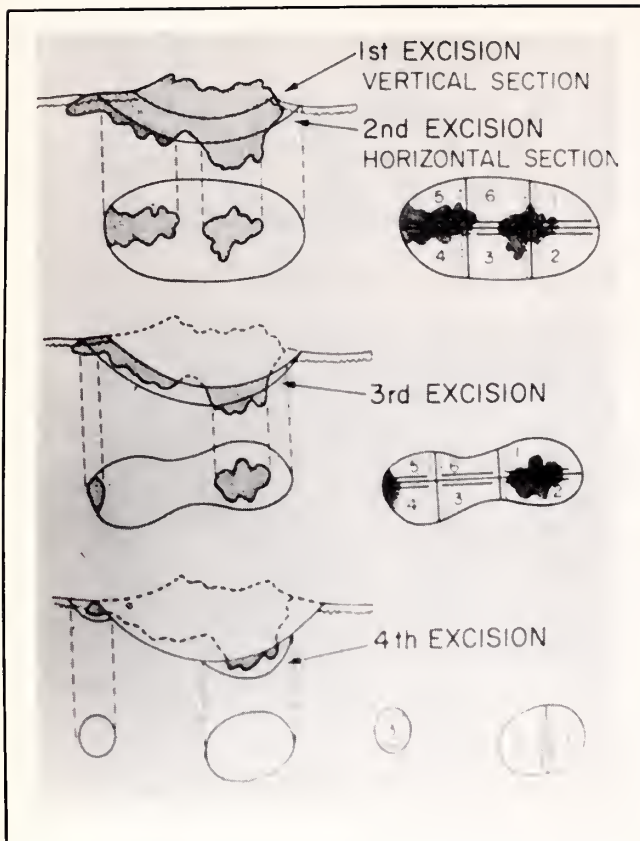


Fig. 1: Diagram of skin cancer (shaded areas) showing how successive layers of tissue were excised for systematic microscopic examination by means of frozen sections. The first excised layer was cut vertically for biopsy specimen. The second excised layer was divided into six specimens of convenient size as shown on the right of the diagram, and frozen sections were cut through the undersurface of each specimen. The shaded areas on the map of the lesion showed the location of the cancer at this level as observed microscopically. The third excised layer was divided into six sections and the fourth excised layer into three sections and examined microscopically. The solid and dotted lines along the edges of the specimens as shown on the maps to the right signify red and blue dyes which provide orientation as the sections were examined under the microscope. (Taken from Mohs¹³)

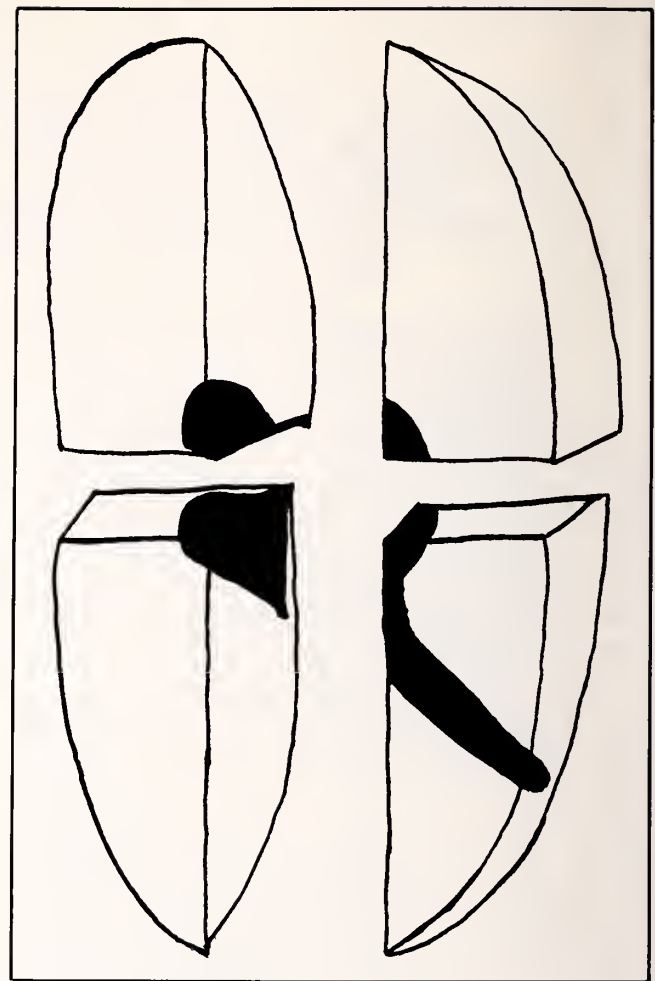


Fig. 2: The above demonstrates how pathologic specimens cut for tumor margins are sectioned along the long and short axes. A tumor that grows out diagonally from these axes would then be missed as extending to the margins of the specimen. Basal and squamous cell carcinomas frequently have finger like outgrowths in multiple directions.

defects may be closed immediately in uncomplicated lesions or allowed to granulate. Recurrent lesions where outlying foci of tumor from previous treatment need to be watched.

At the 1970 American College of Chemosurgery meeting, Doctor Theodore A. Tromovitch reported 75 cases of BCC treated with the fresh tissue technique that had cure rates comparable with the fixed technique. Since then the fresh technique has become widely accepted and used.^{13,18,19}

The problems associated with the fresh and fixed techniques are minor. Discomfort from the fixative penetration and the anesthetic injections are easily controlled with analgesics, nerve blocks and small gauge needles. Bleeding from large vessels is controlled with suture-ligatures. Infection is uncommon and is con-

trolled with appropriate antibiotics. Since no general anesthesia is used and the patients remain ambulatory, most other complications are avoided.

Indications For Chemosurgery

The microscopic control afforded by Mohs' chemosurgery is advantageous for most any cutaneous tumor. It has been used chiefly for BBC and SCC. Numerous other skin and mucosal tumors are treatable with this technique: melanoma, Bowen's disease, oral and lip SCC, dermatofibrosarcoma protuberans, erythroplasia of Queyrat (see table 1).

The primary indications for chemosurgery are recurrent BCC and SCC, morpheaform and sclerosing BCC. With other methods the recurrent malignancies tend to be much more difficult to eradicate than the previously untreated lesions. In 1970 Menn, et al⁶ reported a cure rate for recurrent BCC using excision,

INDICATION FOR MOHS' CHEMOSURGERY

1. Recurrent basal cell and squamous cell carcinoma.
2. Histologically aggressive basal cell carcinomas: morpheiform, multicentric and sclerotic.
3. Untreated BCC and SCC, especially those that are poorly demarcated, large or in locations that are known to have high recurrence rates: nasolabial fold, ala nasi, nasal tip, medial and lateral canthi, postauricular sulcus, pinna, around nasal and auditory orifices, forehead and scalp.
4. Primary cancers in areas where maximal tissue preservation is required; ie. eyelids, hands, feet, digits and genitalia.
5. Bowen's disease.
6. Erythroplasia of Queyrat.
7. Malignant melanoma.
8. Dermatofibrosarcoma protuberans.
9. Squamous cell carcinoma of lip and oral cavity.

EFFECT OF DEPTH OF DERMAL INVASION ON THERAPEUTIC RESULTS COMPARED WITH OTHER SERIES

Level (Clark)	Chemosurgery, determinate cases			Clark et, al., determinate cases		
	Number	Incidence %	Cure Rate %	Number	Incidence %	Cure Rate %
II	4	4.7	100.00	29	18	90.0
III	13	15.0	92.3	58	36	57.0
IV	14	16.3	64.3	59	36	40.7
V	55	64.0	32.7	16	10	18.8
All	86		50.0	162		53.1

curettage and desiccation or radiotherapy of only 50%. Doctor Mohs reports a five-year cure rate using chemosurgery for recurrent BCC of 96.8 per cent.¹³

Morpheaform and sclerosing BCC tend to be two to five times their estimated clinical size. This makes it very difficult to assess adequate surgical margins without complete microscopic control.^{2,4}

When most pathology laboratories cut specimens for tumor margins, to see if the borders are clear of tumor, they only section along the long and short axes. This would allow an extension of the tumor that does not fall in these axes to be missed. (see figure 2). With the chemosurgery technique the entire undersurface and all tissue borders are examined.

Results

Microscopically controlled surgery provides for unprecedented cure rates for skin cancer. Conventional forms of therapy, curettage and desiccation, radiotherapy, cryosurgery and excision have a 90-95% cure rates^{3,5} for previously untreated BCC and 50% cures for recurrent BCC. Doctor Mohs using the fixed technique reports for 7574 consecutive BCC's, 18.3% of which were recurrences, a five year cure rate of 99.3%. For previously untreated lesions the cure rate was 99.9%, and for the 1387 recurrent lesions from other types of therapy it was 96.8%. The five-year cure rate for 2249 consecutive patients with SCC's was 94%, for previously untreated lesions it was 97.3%, and for the 355 recurrent lesions it was 76.3%. He and others have

had comparable cure rates for the fresh tissue techniques.^{10,13,18,19}

Doctor Mohs' five year cure rate for melanomas also compares favorably with that of conventional surgical management. He reports on 103 cases, 86 of which are determinate cases. The undeterminate were cases being those lost to follow-up or dying from other causes without recurrent melanoma before the five years are up. In these 86 patients the cure rate was 50%. Since 64% of these tumors involved the subcutaneous fat (Clark's level 5), this is an excellent result. The cure for the various types and levels as compared to Clark's data are in table 2.

Comment

The major advantage of microscopically controlled surgery for cancer of the skin and other accessible structures is the possibility of complete removal of the tumor. The maximal amount of normal tissue is conserved with very low operative risk and excellent wound healing whether by second intention or primary reconstruction. It offers patients with extensive skin cancers their best chance at cure. The growing awareness and availability of this technique will provide patients and their physicians with a more precise means of cancer removal.

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Do you know a physician with a drinking or drug problem, or some other chronic, impairing condition? Is he potentially dangerous to himself, his patients or his family? Help him out. Contact the KMA Committee on Physicians' Health at the KMA Office: 502-459-9790. Or call one of the committee members listed below.

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THE ENGLISH RULE

A NEW SOLUTION TO THE MALPRACTICE CRISIS

It is the duty of all good opinion writers to comfort the afflicted and afflict the comfortable. It is quite clear from recent literature that you, doctor, are the afflicted and the legal profession has become, through a "big brother" attitude, the comfortable.

Fundamentally, the medical and legal professions utilize different approaches to arrive at "correct or truthful" conclusions. This difference leads to misunderstandings which the professions cannot, at this point, resolve. For example, the medical profession uses all scientific methods available to logically construct a "truthful" answer, whereas the legal profession searches for a "right" answer through attorney confrontation and third party decisions. The "truth" of a contended matter is first settled by a judge or jury after the opposing sides of view have been presented. A legal "truth" may reverse itself many times in court appeals. Unlike the physician who finds an answer through abstract and empirical correctness based in science, the lawyer is procedural-directed and the final result even though it may be inherently incorrect, is accepted. A red ball is not red if a jury states it is yellow. All but the jury may disagree, yet the ball remains "truthfully" yellow. Appeals ensue and the "right" answer may never surface. Based mainly in these differences, conflict between the professions is inevitable and frequently severe.

The "big brother" attitude has not been helpful in resolving these conflicts. The legal profession has stated on many occasions that they are the main policing, *re*, watchdog agency for all professions. Medicine, for example, will not police itself, therefore, the legal profession must. I have also heard that every American citizen has a right of access to our courts and to deny this access would allow physicians free reign to plunder the American people. Albeit unimportant, it is my opinion that the American people are being plundered by those screaming the loudest, the American lawyers. May I, a physician, examine and dissect these issues in search of the truth, the absolute truth. I will not slant or skew the truth, as is often the case in the legal profession, but will present fact.

The American Rule. What Is It?

I recently overheard an esteemed colleague state that he had been in malpractice litigation five times in his

long career and that he had never lost a case. Doctor, if you are named as a defendant in a malpractice case, it is a foregone conclusion that you have lost. It will cost you to win or lose. The real issue is how much. Only in America does the winner bear his own expenses. Only in America do you pay whether you are right or wrong; whether a jury finds in your favor or not, you pay. That is fact.

The American Rule of self-pay is not based in our Federal or State Constitutions or even stated in law. It is a lawyer-made rule. It simply says that each party in litigation is responsible for paying his own attorney fees and other expenses incurred in the litigation. There are a few standardized exceptions, and these of course, appear to benefit the attorneys more than plaintiff or defendant.

The Contingency System, A Farce

How can a system be equally just and equally fair when only the defendant incurs risk in litigation? Simply, it cannot. Under the **American Contingency Plan** of attorney compensation, the attorney for the plaintiff will take 35-50% of any recovery and will be uncompensated if the jury finds in favor of the defendant. A most self-serving and desirable system of professional compensation. I can see a contingency surgeon explaining to his desperate patient, "If the operation is a success, I'll only take 35% of your future earnings. However, if unsuccessful, well, call us even." The plaintiff and his lawyer have everything to gain and nothing to lose. If this is fair, then the red ball is truly yellow.

The general public is finally beginning to understand medical malpractice issues. In a recent forum sponsored by public television, a young woman speaking quite candidly, stated that she was sought out by attorneys and literally begged to litigate against her physician. She did not wish to do so, but the appeal of hundreds of thousands of dollars in judgement persuaded her to allow the suit in her behalf. She was told she would lose nothing and had everything to gain, therefore, with thoughts of financial grandeur, she submitted. The physician won the case, but of course, he lost.

A physician confronted with the process of litigation, attorney's fees, time from work, depositions, court appearances, etc., wants to terminate this foreign proc-

Special Article

ess quickly. The end result for the defense is to keep loses at a minimum. The plaintiff's lawyer, on the other hand, does not have the prospect of a significant financial loss and is able to pursue the monetary "carrot" with abandonment. The incentives are uniquely different for each litigant and awkwardly unequal.

The Incentives

There exists overwhelming initiative to instigate malpractice litigation on the part of plaintiff's lawyers and overwhelming initiative to terminate it on the part of insurance companies and physicians. The insurance company finds itself in a very sensitive and precarious situation. Unlike plaintiffs or defendants, the insurance company does not have a win-loss column and rarely speaks in those terms. It must protect company assets even at the expense of the "truth." Right or wrong takes a back seat when the "carrot" is hundreds of thousands of dollars. Business and survival sense emerge and 84% of all claims are settled before the court gavel is ever raised. The plaintiff gets paid, his lawyer is paid, the court costs are taken care of, the plaintiff's expenses are paid off, the defendant's lawyer and expenses settled and your insurance premiums double the next year. Doctor, nine out of 10 times you don't even get your day in court. And if you do, you win 90% of the cases. Remarkable!

The malpractice insurance dollar pie is a very interesting piece of cake. In California, which is not too unlike Kentucky, out of every \$10,000 paid in insurance premiums, \$7,500 are devoured by fees, court costs, insurance company expenses, and other ancillary payments. This important social system was developed to protect the public from malpractice and ends up supporting a complex, uncontrolled, unwieldy, unchanging legal system which is plundering the American people. It has been estimated that over one half of the physicians' insurance dollar ends up in the lawyers' pockets! And where does the insurance dollar come from? The American people.

Our Courts Are Clogged

There is agreement at all levels of society that our courts need a good cathartic. It takes up to three years for a case to be brought to trial, three long years of mental and emotional strain for both plaintiff and defendant.

After much thought I can foresee only three possible solutions to remedy our present litigation explosion. We can bite the nail by first increasing taxes and expanding the number of judges, courts and court personnel; or second, we can dramatically reduce the

number of lawyers; or third, we can reduce the number of cases permitted on our court dockets.

Since I am in favor of reducing taxes, reducing the number of lawyers and restricting nonmeritorious access to the courts, the best method available to the American people would be strong action in all three areas.

The English Rule. A Must!

Since we purport to be reasonable people living in a civilized society which bases its legal philosophy on the "Justice for All" principle, it is my opinion that little can be done to alter our stagnant legal system. The American voter recently mandated conservatism, therefore, further expansion of our court systems is highly unlikely. In addition, the state of Kentucky produces nearly 500 fledgling lawyers every year. It has been estimated that there are at least fivefold more lawyers than are actually needed to carry on necessary legal affairs and that if we stopped producing new lawyers today, there would be a plethora well into the 21st century.

It becomes quite clear that our only hope is to adopt the English Rule. Virtually every country in the world bases their system of justice on the English Rule. Canada, Mexico, European countries, Australia are but a few that operate under the presumption that the winning party is entitled to recover all expenses of litigation. This rule has been in effect in England for nearly 800 years. William F. Buckley, Jr., recently indicated that if we do not revert to the English Rule, our court system will soon destroy itself in its own unnecessary legal glut.

Florida physicians were recently faced with the disastrous loss of medical mediation panels as a result of a Florida Supreme Court decision. The Florida Medical Association sponsored and endorsed a Recovery of Cost legislation which after a long, hotly debated fight with the Florida trial attorneys became law on July 1, 1980. This law encompasses the English Rule philosophy and provides:

- The losing party, (except those who are insolvent or poverty stricken) to pay the attorney's fees of the winning party.
- The attorney to advise his client in writing of the provisions of the law before initiating a suit.
- A party to make an offer to allow judgement to be taken against him and such party shall not be taxed for the winning parties attorney's fees which accrue subsequent to such offer if the final judgement is not more favorable to the winning party than the offer.

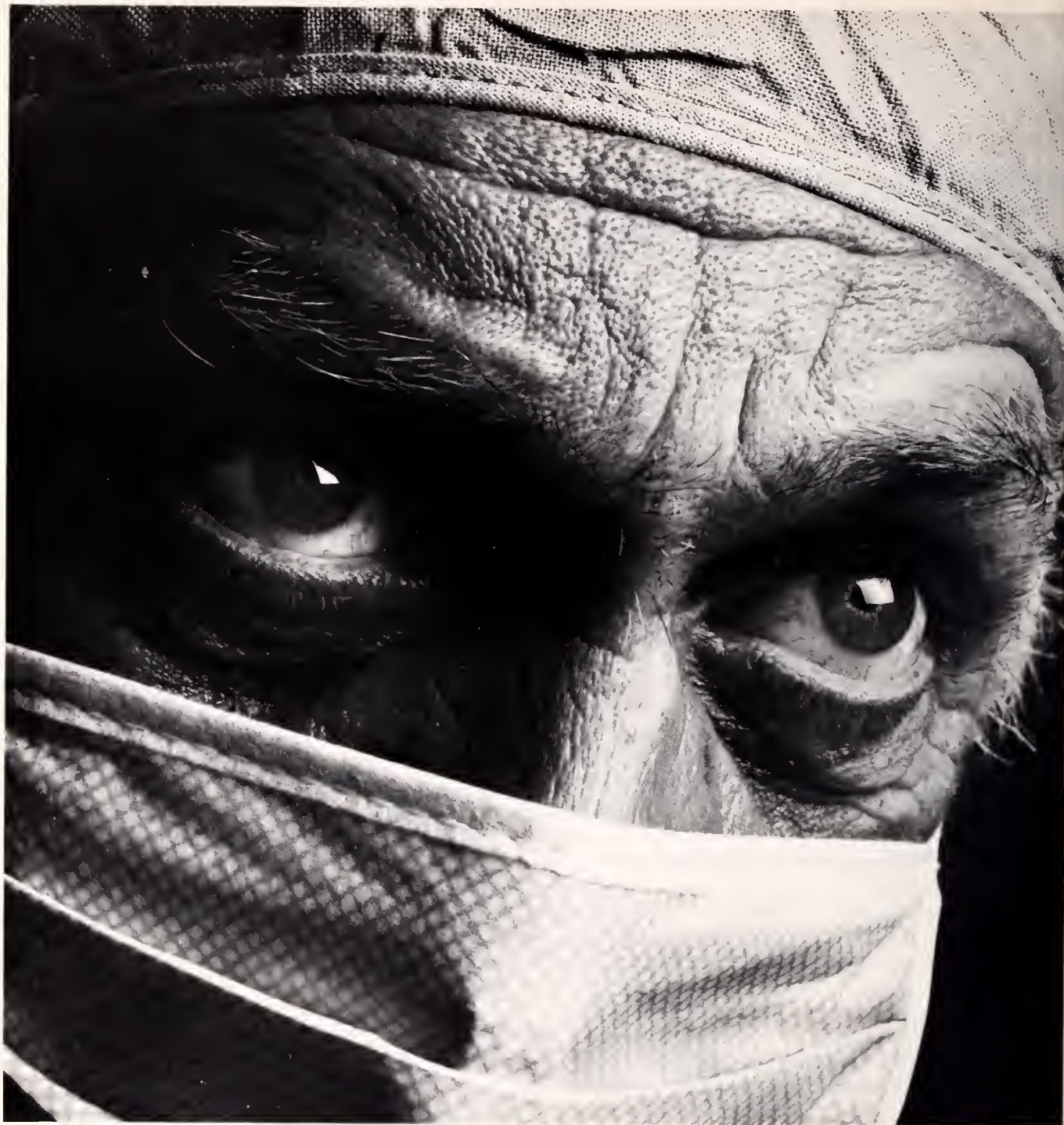
If introduced in our Legislature, medical malpractice legislation would not be treated differently than other special classes of legislation now on the books. The Kentucky Legislature has already adopted unique laws regarding workman's compensation and no fault automobile insurance. This law would simply limit the number of nonmeritorious medical malpractice suits reaching our courts. Plaintiff's attorneys would carefully scrutinize a case before advising litigation, and once filed, settlement where appropriate would be hastened.

In Conclusion

I hope that Kentucky physicians can join in a common goal to stop this unnecessary, ever increasing

havoc to our profession. We should tell our medical leaders from teaching universities to the smallest communities, that we must have change. Our leaders should recruit hospital executive directors, hospital associations, and insurance companies to join with us in pursuit of new malpractice legislation. It will benefit the entire medical community, but best of all it will benefit our citizens.

C. Dale Brown, M.D.
McCracken County Medical Society



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LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the *Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To The Editor:

Author's Reply to Editor's Note from "Medical School Selection: A New Process for an Old Problem" (August 1981, page 496).

The reliability of the personal interview for professional school applicants has been debated for decades. Data have been presented by proponents and opponents alike to argue for or against the use of the personal interview. Students have long since learned how to dress and act in a manner deemed most acceptable to the interviewers.

We certainly agree that the interview can be a most useful tool to gather information about a candidate. In many instances, however, we have very persuasive documentation from premedical advisors, with whom we have had a long standing and close working relationship, faculty, job supervisors and practicing physicians that the applicant is an exceptional prospect. We value these long term observations and, hence, have agreed to forgo an interview in certain instances (it should be noted that many of the prestigious national schools do not require students to travel to the schools for interviews, but obtain the material through similar mechanisms).

The interview, like the grade point average, MCATs and personal experiences, is only a piece of a puzzle to be assembled on each candidate and, certainly, the interview itself is not the best predictor of a candidate's personal characteristics as they relate to success in the chosen field.

To The Editor:

Many physicians throughout history have been involved in creative hobbies, such as painting, sculpturing, photography and crafts. However, in the United States it was not until 1936 that they had an organization in which they could exhibit these creative ventures. At that time the American Physicians Art Association was organized by the late Frances H. Re-

dewill, Sr., M.D., a San Francisco urologist and a talented marine painter. He and some other physician artists had the first exhibition of APAA at the convention of the American Medical Association in San Francisco in 1936.

Much national publicity has been accorded the APAA. It has often been termed by critics as one of the finest non-professional arts shows in the country. Noted professional artists judge the show each year, awarding the much sought after prizes. The professional show director hangs the show and his word is final.

The majority of members of the APAA are active, artistic creators who exhibit their work in one or more of the following categories: Oils and Acrylics, Water Colors, Sculpture, Photography, Arts and Crafts, and/or Graphics and miscellaneous.

This year the APAA Annual Art Exhibition and annual meeting will be held during the 75th annual Southern Medical Association meeting in New Orleans, Louisiana, November 15-18. Membership in the Southern Medical Association, however, is not required.

Membership is open to all physicians. Those interested should write to:

**Milton S. Good, M.D.
Treasurer, APAA
610 Highlawn Ave.
Elizabethtown, PA. 17022**

To The Editor:

On June 25, 1981, the Spurling Neuroscience Society was organized at a meeting at the Louisville VA Medical Center. The new society represents a formalization and expansion of the bimonthly Neuroradiology Conferences directed by Doctor Edward Maxwell. Doctor Maxwell, along with Doctors Lawrence and Richard Jelsma, began the series in 1972 to create a forum for the interchange of interesting neurological and neurosurgical cases among the various Louisville hospitals,

Letters

and to develop neuroradiology interest and expertise in this area. Both aims have been admirably served. It was felt by the regular participants that, in addition to the main theme of neuroradiology, basic neurology and neuroscience topics could also be included. Six sessions will be planned each year, rotating among the different hospitals. Attendance is open to all neurologists, neurosurgeons, radiologists, psychiatrists, and physiatrists, as well as individuals interested in the basic neurosciences.

The Society commemorates the late Doctor Glen Spurling who, along with the late Doctor Franklin Jelsma, brought the practice of neurosurgery to the Louisville area.

John F. Rice, MD
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To The Editor:

What is good for the Blues is not necessarily good for ye-old and young physicians. The Blues are the largest price fixer of medical fees in the USA and in the Bloody ground (Ky.). With 83% of the Kentucky doctors signed up for the UCR Blue program, it is obvious who is the Kentucky physicians boss. With this set up the Blues can set our charges what they wish, with no come back. We are in the Blues hip pocket.

This has been brought about by a skillful propaganda program over the years. Where we credulous physicians have been represented by soft headed officers of KMA, who were wine and dined by the Blues, and told what great fellows they were. In the beginning radiology fees were paid about 100% full, so that established a solid beach head to work on, as all of these people were supporters and propagandist of the Blues. It was a program of divide and conquer. And we are conquered.

The Blues skillfully castigate Uncle Sam as a leader in socialized medicine, to divert too much attention from their own fee setting programs. The stance of the Blues has lead other medical insurance companies to set medical fees and greatly helped Uncle Sam to shaft us more often and deeper.

One who offers a different opinion than the stance of the Blues has difficulty in getting it published. One of the former editors of our *KMA Journal* was on the payroll of the Blues for years. This fox in the chicken house set up was most effective, against us. Time has come for us to pull our head out of the sand.

Clifton E. Lowry, M.D.
Owensboro, Ky.

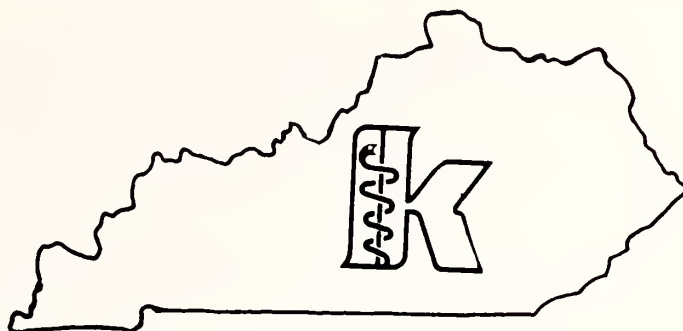
The American Medical Association, in cooperation with the American Correctional Health Services Association, will sponsor its Fifth National Conference on Medical Care and Health Services in Correctional Institutions at Chicago's Marriott Hotel, October 30-31, 1981.

Approximately 500 people annually attend this conference. Nearly 40 workshops offering the greatest variety in history, will focus on every aspect of correctional institutions. A sampling follows:

- Risk management and law suits
- Improving staff morale and performance
- Epilepsy in prisons
- Health problems of incarcerated women
- Health care needs of juveniles
- Treating the drug offender
- Evaluating jail models

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ASSOCIATIONAL NEWS

Scientific Session Will Highlight 1981 KMA Annual Meeting

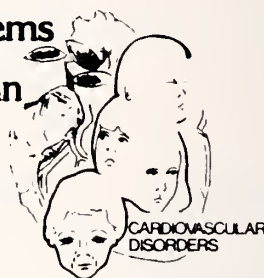
"Problems in the Human Life Cycle—Cardiovascular Disorders" is this year's theme of the KMA Annual Meeting. Medical authorities from across the nation will discuss topics on "Birth, Infancy and Childhood," "Adolescence to Adulthood," "The Coronary Care Unit" and "The Aging Patient" during the general scientific session, September 22, 23 and 24.

The Meeting opens officially on Monday, September 21, when the House of Delegates meets at 9 a.m. in the Julia Belle Room of the Convention Center. A second meeting of the House will be held on Wednesday, September 23, at 6 p.m. also in the Julia Belle room.

Twenty-one specialty groups will meet on Tuesday afternoon, September 22 and Thursday afternoon, September 24.

Kentucky's Lieutenant Governor Martha Layne Collins will be the featured speaker at the President's Luncheon, scheduled for 11:50 a.m. Wednesday, September 23. In addition, there will be an awards ceremony and the installation of the KMA President Ballard W. Cassady, M.D.

Problems
in the
Human
Life
Cycle



Other events during this year's Annual Meeting include the KEMPAC Seminar, alumni reunions of the U of L and UK medical schools and a "Fun Run" sponsored by the Auxiliary to KMA.

Complete details of the 1981 Annual Meeting appeared in the August Journal of KMA.

Headquarters Activity

SEPTEMBER

- 8 Journal Editors, Louisville
- 9 Membership Committee, Louisville
- 22-24 KMA Annual Meeting, Louisville
- 24 Board of Medical Licensure, Louisville

OCTOBER

- 13 Journal Editors, Louisville
- 17 Physicians Recruitment Fair, Louisville

Reference Committee Activity

Speaker Bennett L. Crowder, II, M.D., Hopkinsville, will assign all officers' and committees' reports and resolutions to one of six Reference Committees at the first meeting of the KMA House of Delegates at 9:00 a.m., Monday, September 21. **Briefing sessions** for Reference Committee Chairmen will be held at **12:30 p.m., Monday**, in the Delta Queen Room in the Bluegrass Convention Center. Any KMA member wishing to testify on any resolution or report is urged to be present for the **Reference Committee Meetings** which will be held at 2:00 p.m., Monday, September 21, in the Bluegrass Convention Center. These open sessions will last one hour, in order for all who wish to be heard. Following the open hearings, the Committees will go into executive session to study the reports, review the testimony, and write their reports to the House.

The Committees' recommendations will be presented at the final session of the House, Wednesday evening, September 23. Both sessions of the House will be held in the Julia Belle Room in the Bluegrass Convention Center.

1981 KMA Reference Committee Appointments

REFERENCE COMMITTEE NO. 1

Cincinnati Room

R. Kendall Brown, M.D., Georgetown, Chairman
C. Dale Brown, M.D., Paducah
Thomas C. Dedman, M.D., Louisville
John D. Perrine, M.D., Lexington
William R. Yates, M.D., Hebron

REFERENCE COMMITTEE NO. 2

Island Queen-Idlewild Rooms

John W. Kraus, M.D., Paducah, Chairman
Victor F. Duvall, M.D., Clarkson
Thomas M. Jarboe, M.D., Lexington
Henry W. Post, M.D., Louisville
Fred A. Stine, M.D., Highland Heights

REFERENCE COMMITTEE NO. 3

Majestic-New Orleans Rooms

Don E. Cloys, M.D., Richmond, Chairman
Keith E. Ellis, M.D., Benton
Lynn L. Ogden, M.D., Louisville
Garner E. Robinson, Ashland
John E. Trevey, M.D., Lexington

REFERENCE COMMITTEE NO. 4

Grand Republic Room

C. Ray Potts, M.D., Louisville, Chairman
Ward O. Griffen, M.D., Lexington
Willis P. McKee, M.D., Shelbyville
William Miller, Greenville
Raymond J. Timmerman, M.D., Ft. Thomas

REFERENCE COMMITTEE NO. 5

Mississippi Queen Room

R. D. Pitman, M.D., Williamsburg, Chairman
Bob M. DeWeese, Louisville
Kenneth M. Eblen, M.D., Henderson
David C. Liebschultz, M.D., Danville
Edward Nighbert, Lexington

REFERENCE COMMITTEE NO. 6

Natchez Room

Nelson B. Rue, M.D., Bowling Green, Chairman
Michael Flynn, Louisville
Allen E. Grimes, M.D., Lexington
C. Douglas LeNeave, M.D., Mayfield
Cecil D. Martin, M.D., Carrollton

KMA Physician Recruitment Fair is Scheduled for October 17

The Kentucky Medical Association, along with the University of Kentucky, University of Louisville, Kentucky Hospital Association, Kentucky Chamber of Commerce, Kentucky Farm Bureau and the Department for Human Resources is sponsoring the Third Annual Physician Recruitment Fair.

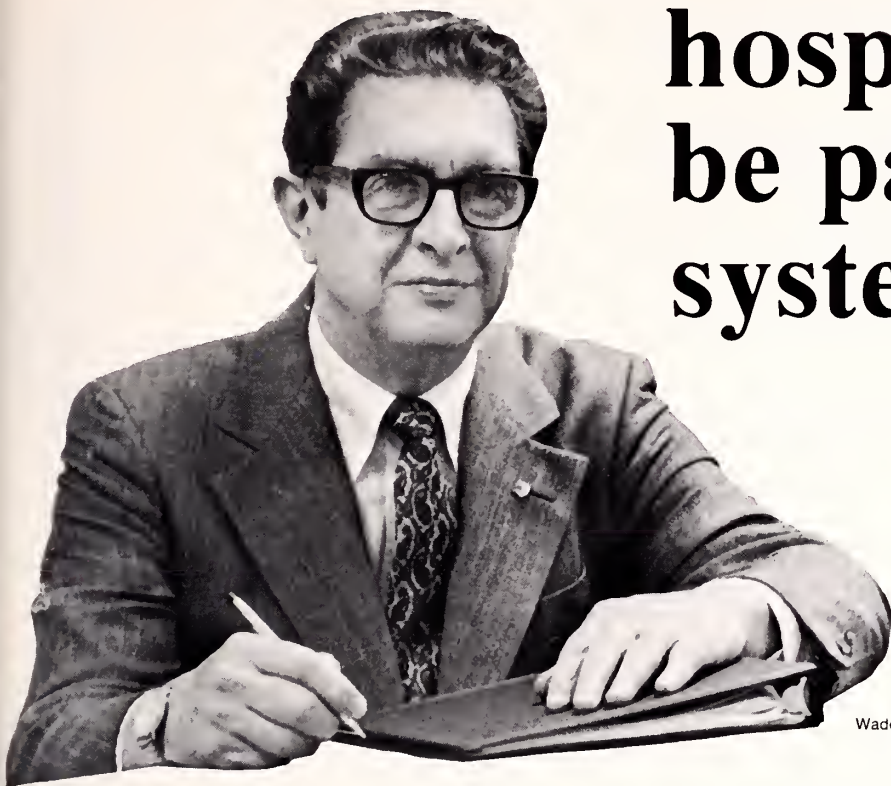
The one-day program will be held October 17, 1981, at the Ramada Inn/Bluegrass Convention Center,

Louisville, Kentucky, and will feature an exhibit hall where medical students, residents and physicians may meet with more than 55 communities to discuss practice opportunities.

You and your spouse are cordially invited to attend this program. For more information and registration forms, please call or write the KMA Placement Service, 3532 Ephraim McDowell Drive, Louisville, KY 40205 (502) 459-9790.



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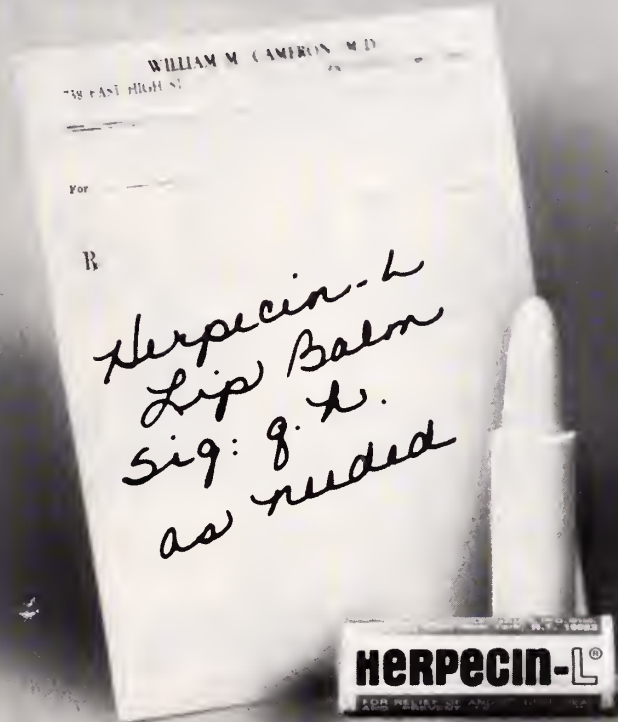
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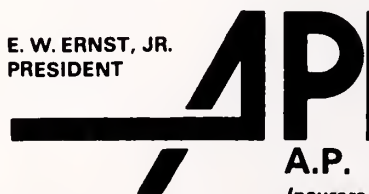
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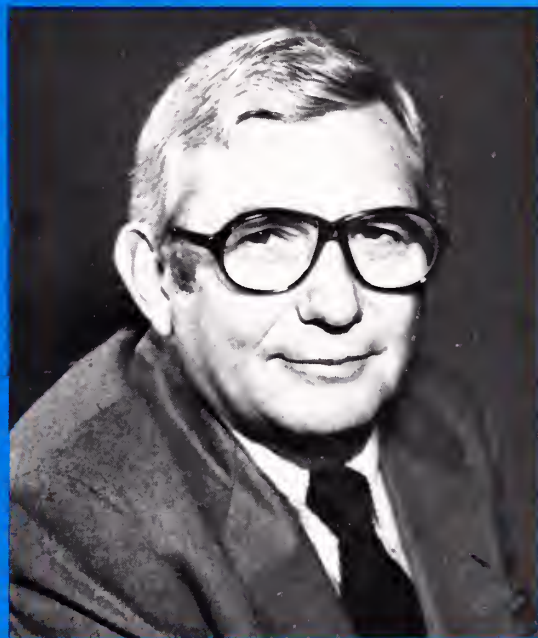


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EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and on other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs.

Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Succidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow CNS stimulants (e.g. caffeine, Meclazol or amphetamine,

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mid reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped and institution of therapy should not be attempted. Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVER-

DOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group. **PRECAUTIONS:** Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: **SYMPTOMS:** The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardopathy have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone, nalorphine, and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation, and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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PRESIDENT'S PAGE

THE Opportunity to serve you as President of the Kentucky Medical Association is a distinct personal honor for which I am extremely grateful. In addition, serving with a Board of Trustees which represents our finest talent and leadership assures the continuity of the programs and policies of the Association.

The Board of Trustees works many long hours to represent physicians' views and implement policies which reflect the concerns encountered in our daily professional and social lives. The Association is a collective effort and to achieve any measure of success we need your continuing input, support and confidence.

The cost and delivery of health care will once again be a major issue on both the national and state levels. The Kentucky General assembly, which convenes in January 1982, will consider approximately 1,600 legislative proposals of which 10-12% will directly or indirectly affect your practice. We hope each of you will find the time to discuss the more important issues with your Representative and Senator. Information regarding relevant legislation may be obtained from KMA Headquarters.

Patient access to a vast portion of health care services comes through physician direction. While we desire to control our own destiny, that type of control comes with the concomitant responsibility to insure that utilization of health services is medically appropriate and necessary.

The Kentucky Medical Association's purpose and reason for existence is to serve physicians; promote the Federation; advance medical knowledge and to enlighten and direct public opinion in regard to the problems of health and medicine. The fulfillment and implementation of these objectives is an obligation we all must share.

In addition to becoming politically involved, you must also become active with your own peers and impress upon them the need for participation in KMA. The Benefits of the Federation of medicine inures to all physicians, members and non-members alike, irrespective of who pays the freight or carries the burden.

In closing, I am deeply moved by your confidence and support and am acutely aware of the trust which you have placed in me.

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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid over-sedation. Terminate dosage gradually since abrupt withdrawal of any anti-anxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan[®] (lorazepam) for Anxiety

Dosage: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

How Supplied: 0.5, 1.0 and 2.0mg tablets.



Four practical reasons to prescribe **Ativan[®]** **for** (lorazepam) **Anxiety^{*}**



1

No interaction with more than 300 drugs[†]

In clinical studies, Ativan was given concomitantly with hundreds of medications, including gastrointestinal and cardiovascular, with no reported interactions. Whereas the interaction of diazepam and cimetidine has been shown to cause increased sedation in patients taking both drugs, the clearance of Ativan is not delayed by Tagamet.[‡]



2

Lets most patients stay active

Long-acting benzodiazepines have long-acting metabolites with activity which can produce excessive accumulation that may lead to unwanted sedation. Ativan[®] has no active metabolites, reaches steady state in 2 to 3 days and usually does not cause oversedation. Also, the shorter half-life of Ativan is consistent with b.i.d. dosage, so drug hangover is seldom a problem the next morning.



3

Not appreciably affected by aging

Unlike the long-acting benzodiazepines—diazepam [®], chlordiazepoxide [®], clorazepate [®] and prazepam [®] — the metabolism and clearance of Ativan are not appreciably affected by the aging process.



4

Not significantly affected by liver dysfunction

Ativan[®] is metabolized in one simple step to an inactive glucuronide; its absorption and excretion are not significantly altered by cirrhosis or hepatitis. By contrast, the metabolism of diazepam and chlordiazepoxide has been reported to be significantly altered in patients with liver dysfunction.

Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

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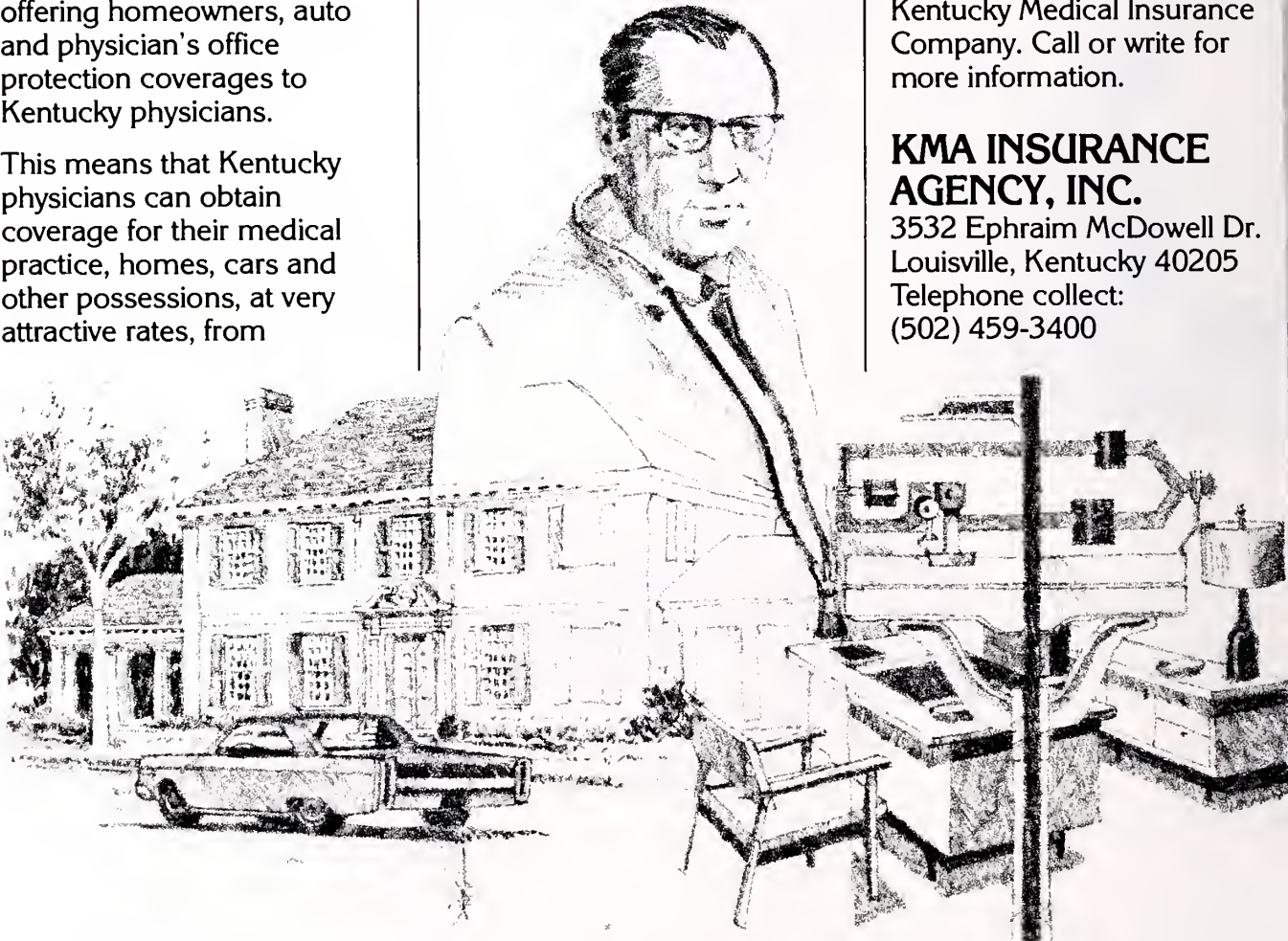
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Pulmonary Lesions in Patients Undergoing Open Heart Surgery: Approach and Management

ROLAND E. GIRARDET, M.D., ZAHY H. MASRI, M.D. and ALLAN M. LANSING, M.D., Ph.D.

The discovery of asymptomatic pulmonary lesions in cardiac patients undergoing heart surgery presents a dilemma of priorities. Since most lung lesions are suspected of malignancy, both conditions have life-threatening potentials. Sequential operations, leading to delay in the treatment of one condition in fact plays the danger of cardiac complications against the uncertainties of delayed cancer surgery or vice versa, depending on which operation is performed first. A simultaneous operation, on the other hand, is more definitive and ideally preferable but involves special risks and technical difficulties. The approach to this problem and the management of four patients make the subject of this report.

Case Reports

Case 1

A 60-year-old male was admitted for coronary revascularization with the main complaints of progressive angina on effort and at rest not responding to medical treatment. Cardiac catheterization revealed inferio-apical hypokinesis and a moderately decreased overall left ventricular function with an ejection fraction reduced to 25%. Severe three vessel disease was present, with 80% stenosis of the left main coronary artery, 80% of the proximal left anterior descending including

the origin of a diagonal branch, 60% narrowing of a dominant left circumflex, and total occlusion of a small right coronary artery. The recent history included a myocardial infarction, one episode of congestive heart failure and intermittent claudication in both lower extremities.

On physical examination, there was evidence of peripheral arterial vascular disease and an asymptomatic left carotid bruit was noted. The chest x-ray showed a 5.5 non-calcified mass located in the superior segment of the left lower lobe, not present on a previous chest x-ray three years previously. The patient had been a heavy smoker, but he had no pulmonary symptoms at the time of admission.

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On account of his cardiac symptoms and the extent of the coronary pathology, it was felt that the patient should undergo coronary revascularization first, prior to management of the lung lesion, since it was feared that his cardiac status would not allow him to tolerate a thoracotomy. The patient underwent a triple coronary artery bypass procedure. After heparin neutralization, the left lung was explored from the median sternotomy incision. A 5 cm. mass was palpated in the superior segment of the left lower lobe. Because of its posterior location and also because of local infiltration, a resection was not considered feasible. A needle biopsy was obtained, revealing an infiltrating adenocarcinoma of the bronchial alveolar type. After an uneventful postoperative course, the patient was discharged. Six weeks later, and after an appropriate and negative workup, a left lower lobectomy was performed via a left thoracotomy. The pathology report revealed poorly differentiated adenocarcinoma with peribronchial lymph nodes and the bronchial margin of resection free of disease. The patient is well 23 months later.

Case 2

A 50-year-old white male was admitted for coronary revascularization with a history of rapidly increasing angina poorly responsive to medical treatment. Coronary angiography revealed a 95% stenosis of the left main coronary artery, total occlusion of both the left anterior descending and a large dominant right coronary arteries, as well as 90% stenosis of the left circumflex. The preoperative chest x-ray revealed an ill defined non-calcified nodule in the left upper lobe, raising the possibility of a carcinoma, or of a scar secondary to a previous stab wound in this location. Because of the threatening nature of the coronary pathology, the pulmonary lesion was not further investigated and the patient underwent an urgent triple coronary bypass operation. At the end of the open heart procedure, the left upper lobe was explored via the mid-sternotomy incision. A firm 1 cm nodule was felt at the periphery of the lobe which was bound to the chest wall by dense adhesions. The nodule was removed by wedge resection and pathological examination revealed a caseous

granuloma. Acid-fast and fungus cultures remained negative. The patient is well 18 months later.

Case 3

A 48-year-old white female was admitted for evaluation and treatment of very unstable angina of recent onset, associated with transient elevation of the ST segment in the inferior wall lead. Cardiac catheterization revealed a normal left ventricular function, and subtotal occlusion of a large dominant right coronary artery. Since the patient had changes compatible with Prinzmetal variant angina with a fixed coronary lesion, revascularization was recommended. The patient had a long history of severe chronic asthma which was steroid dependent. A chest x-ray showed an irregular right upper lobe density and nodules, suggestive of malignancy. A limited preoperative workup was conducted to rule out the possibility of a metastatic lesion, which was negative. Bronchoscopy and sputum examinations were negative. Skin tests were non-diagnostic on account of skin anergy secondary to steroid treatment. The patient underwent a single coronary bypass to the right coronary artery, via a right thoracotomy and with femoral artery cannulation. At the completion of the cardiac operation, the right upper lobe was examined through the same incision. A large mass was felt embedded deep in the lobe which itself was bound to the middle lobe by dense adhesions. A right upper lobectomy was performed. The pathological diagnosis revealed fibrocaceous granulomata consistent with histoplasma encapsulatum. The patient's post-operative course was complicated by atelectasis of the remaining right lung and a small pleural effusion. She recovered and is doing well 16 months later.

Case 4

A 55-year-old female was admitted for coronary revascularization. She had a previous history of myocardial infarction and one episode of congestive heart failure. Cardiac catheterization performed two years earlier had led to medical treatment. Because of increasing angina not controlled medically, a repeat cardiac catheterization

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was performed revealing a moderately decreased left ventricular function, total occlusion of a small left anterior descending, 80% stenosis of the left circumflex and 70% stenosis of a large dominant right coronary artery. The chest x-ray showed an irregular 6.5 mass in the right upper lobe, suggestive of a neoplasm, primary or secondary. A search for possible primary lesion elsewhere and bronchoscopy were both negative. The patient underwent a triple coronary bypass procedure. At the end of the open heart operation, and via the mid sternotomy incision, the right upper lobe was examined. It contained a single large lesion and a right upper lobectomy was performed.

The pathological diagnosis revealed a clear-cell carcinoma, consistent with a primary pulmonary neoplasm, though a metastatic renal cell carcinoma could not be definitely ruled out. The bronchial line of resection and the regional lymph nodes were free of tumor. Prior to discharge, a bilateral renal arteriogram was within normal limits. The patient is doing well 11 months later.

Discussion

The simultaneous occurrence of lung and heart pathological conditions, each requiring surgical treatment is not common, but is to be anticipated whenever a large volume of cardiac surgery is dealt with. This was encountered four times among 1,596 patients undergoing open heart surgery between 1979 and 1980. The problem consists in deciding whether to treat each condition separately, and if so which one first or simultaneously.

A simultaneous approach is appealing since it offers a definitive solution to the patient's entire problem, but it entails special technical and operative risks. A sequential approach, on the other hand is surgically simpler but involves delay in the treatment of one lesion with possible adverse secondary results. For example, studies have shown that patients with heart disease have a significant risk of developing serious or fatal cardiac complications when subjected to a general surgical procedure such as a thoracotomy.¹ Conversely, there are risks involved in delaying treatment of a potentially malignant lesion when subjecting the same patient to a cardiac operation first, but those risks are of a less threatening nature.

If sequential operations were to be considered it therefore is clear that since the patient's heart condition represents the most pressing of his problems priority must be given to correcting the cardiac condition first.

Our general approach to the treatment of combined lesions has been to attempt a simultaneous operation, going ahead first with the open heart procedure and attempting to deal with the pulmonary lesion at the same time in a manner as definitive as possible and if at all feasible from the technical standpoint. With this plan in mind, the pulmonary lesion must be evaluated preoperatively, the extent of such evaluation depending on the stability of the patient's cardiac status.

History, review of previous x-rays, sputum examinations, skin testing, non-invasive studies, and search for possible primary lesions when indicated can safely be performed in each patient at no risk and with little delay to the open heart procedure. Bronchoscopy ideally should be conducted, but even this benign invasive examination may not be advisable in patients with very unstable coronary artery disease such as those with left main coronary stenosis. Because of such short-comings and also because of time limitation, the preoperative evaluation can not always be as complete as it should ideally be and it may not lead to a preoperative diagnosis. One must therefore be ready to complete the evaluation and obtain the final diagnosis only at the time of operation and deal accordingly with it.

An important decision during the preoperative planning is the selection of the most appropriate incision offering the greatest flexibility for the possible performance of both the cardiac and the pulmonary procedures. Because of its priority the cardiac operation dictates the type of incision, the choice lying between a mid-sternotomy incision and a right lateral thoracotomy. A mid-sternotomy incision is routine for almost all open heart procedures. Though not customary for pulmonary surgery, it has recently been advocated more frequently for synchronous resection of bilateral lung lesions particularly in the patient with severely impaired lung function, since it causes less derangements in pulmonary functions than a lateral thoracotomy.^{2,3} Recommended technical aids to

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obtain the best possible pulmonary exposure are the use of a double-lumen endotracheal tube (not used in our series) and division of the pulmonary ligament to improve the lung mobilization. Such an incision certainly allows for intraoperative evaluation of all lung lesions and obtainment of a definite diagnosis by needle biopsy. It affords a good approach to all lobes of the right lung. Exposure to the left lung is less easy because of the need for retraction of the heart, but lesions of the left upper lobe are relatively accessible. Exposure of the left lower lobe is more difficult and resection of lesions located in this lobe may not be feasible for concomitant performance with an open heart procedure. In such a case, a sequential left thoracotomy conducted six to eight weeks later may become necessary. This was the course we followed in the treatment of our patient with an adenocarcinoma of the superior segment of the left lower lobe, the diagnosis being established by needle biopsy at the time of the cardiac procedure.

The right thoracotomy is obviously standard for right lung surgery, but selected cardiac procedures, such as operations on the mitral or the tricuspid valves, closure of ASD or surgery on the right coronary artery, can be performed through this incision. In such a case and to avoid crowding the operative field the cardio-pulmonary bypass should be conducted with femoral artery cannulation.

Another important technical consideration concerns the proper sequence of operative steps to follow in the performance of the combined procedure. This is mainly related to the need for total heparinization during the cardiac portion of the operation. The lung must be kept completely undisturbed until completion of the cardiac repair and heparin neutralization. Only then can handling, biopsy or resection of pulmonary lesions be conducted without increased risk of local bleeding.

It is clear that the ultimate decision to carry a lung resection synchronous with the open heart operation has to be made at the operating table, and will depend primarily on the stability of the patient's cardiac status, and secondarily on local technical considerations. Despite the fact that all patients reported have had coronary artery sur-

gery, this conclusion should remain valid for patients undergoing valve replacement or repair of congenital defects.

Few reports on this problem have appeared in the literature but the combined approach outlined above has been successfully used recently.^{2,4} Based on these and our experience, it appears that incidental lung lesions in patients undergoing open heart surgery can at least routinely be evaluated during, and that most can be resected simultaneously, with the cardiac procedure. The advantages of this approach include an immediate and definitive treatment of both conditions and a short hospital stay.

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ADDENDUM

Since the submission of the manuscript three additional patients were treated. One patient had a triple coronary bypass and wedge resection of tuberculous granuloma from the left upper lobe. Another patient underwent a triple coronary bypass and wedge resection of a fibroma from the left lower lobe. Both are doing well. A third patient underwent an urgent triple coronary bypass graft for very unstable angina and left main coronary stenosis, as well as a wedge resection of a squamous cell carcinoma of the right upper lobe. Massive bleeding from a branch of the LAD graft necessitated emergency reoperation at which occasion the patient suffered a cardiac arrest. Despite successful control of the bleeding, the patient suffered brain damage and died two weeks later.

All three patients were managed according to the principles outlined above including mid sternotomy for the combined procedure.

Screening for Major Hemoglobinopathies in Newborn Blacks

KATHLEEN K. RALSTON, B.S., M.T., DONALD R. KMETZ, M.D.,
MARIE M. KEELING, M.D. and JOHN T. QUEENAN, M.D.

To detect hemoglobinopathies at the earliest date, cord bloods were screened for hemoglobin mutants, using electrophoresis on cellulose acetate and citrate agar, in 1,298 Black children born at University Hospital during a 21-month period. Primary testing was done at the State Human Resources Laboratory. Disease or rare trait specimens were confirmed by CDC. There were 9.7% abnormal and 90.3% normals. An appropriate sampling of individuals was retested at age one year by the State Laboratory. Abnormals were sent to CDC and/or the Hemoglobin Laboratory at Norton-Children's Hospitals. Retest results were 100% confirmative in the 12.5% of original normal hemoglobin (Hb) FA's retested. In the 41.3% of cord bloods thought to be trait or disease, retests were confirmative in all but one child. The overall error was 0.5%, demonstrating the accuracy of the cord blood screening methodology.

IF one agrees with screening large populations of Black individuals for sickling disorders, particular benefits are derived when this testing is performed in the newborn period.¹ This holds true, of course, only if the screening method is precise with a minimum of false negatives and false positives.² Accordingly, the present investigators, using both cellulose acetate and citrate agar electrophoresis, have tested 1,298 cord bloods during a 21-month period and found the methodology relatively inexpensive and extremely accurate.

Materials and Methods

During a 21-month period (July, 1976-April, 1978) 1,298 cord blood samples from Black infants born at University Hospital were studied by hemoglobin electrophoresis. The procedure was fully explained to the mother and informed consent was obtained. Four ml specimens were collected in EDTA tubes and refrigerated at 4°C until mailed to the Kentucky Department for Human Resources State Laboratory. Both cellulose acetate electrophoresis, tris EDTA borate buffer and citrate agar electrophoresis, citrate buffer (Helena Laboratory) were utilized. Disease or rare trait

specimens were immediately sent to the Center for Disease Control (CDC) in Atlanta, Georgia for confirmation.

Unless otherwise noted, all retests were done at one year of age or older, and retest samples were labeled numerically. Anonymity was preserved. One hundred forty-seven randomly selected infants with normal cord blood results had heparinized capillary specimens collected at 10 different area clinics. Fifty-two infants with suspected trait or disease had venous specimens drawn at the University Hospital's Pediatric Clinic. Cellulose acetate electrophoresis was performed on all retests at the State Laboratory. If the results were AS, then a solubility test was performed. If the results were AC, then a citrate agar electrophoresis was performed. Disease or unusual traits were sent to CDC for confirmation. Also, 12 of the 52 disease and trait infants who were retested had hemoglobin profiles done. This consisted of alkaline and acid electrophoresis, heat stability testing,³ fetal hemoglobin quantitation,⁴ ferrohemoglobin solubility when indicated,⁵ microcolumn chromatographic determination of hemoglobin A₂,⁶ and quantitation of all hemoglobin variants by DE-52 microcolumn chromatography⁷ in the Hemoglobin Laboratory at Norton-Children's Hospitals.

Technical and financial assistance for this project were provided by the Sickie Cell Program, Bureau for Health Services, Department for Human Resources.

HEMOGLOBINOPATHIES—Ralston et al

**Table I—Breakdown in Number of Infants Tested
Total Newborns Tested—1298**

	Normals (90.3%)	Traits or Diseases (9.7%)
Initial Test	1172	126
Retest	147	52

Results

One hundred twenty-six cord blood specimens were identified as having a disease or trait condition (Table I).

Of the cord bloods initially tested as FA, 12.5% were retested (Table II). All retest results were AA.

Of the cord bloods that were thought to be trait or disease, 41.3% were retested. The two babies suspected of having SS and CC disease were confirmed as having disease on retest.

The largest percentage of specimens with trait or disease were specimens with S trait (5.4%) (Table III). This was where the one error out of 199 retests was detected (0.5%). A cord blood specimen with FAS at birth was on retest, FA. The fact that no trait or disease condition was missed was reassuring.

Three retest results require further explanation (Table II). The FA "X" cord blood results could not be definitively identified by the State Laboratory or by CDC and were labeled inconclusive. However, on retest, both the State Laboratory and the Norton-Children's Laboratory found the specimen to be AD. The initial test result with suspected methemoglobin did not show this on retest. This is not surprising since methemoglobin is a transient hemoglobin. And finally, the child with two fast migrating bands at birth was retested at four months of age, instead of the one year time period. Presumptive evidence of Bart's hemoglobin explains the missing fast band on retest. Further testing involving the other fast band was not possible, as the family moved out-of-state with no known address.

All of the 12 hemoglobin profiles done by the Norton-Children's Laboratory were in agreement with the State Laboratory's results. These profiles included both SS and CC diseases, and the above

**Table II—Hemoglobin Patterns at Birth
and on Retest**

Hgb Patterns at Birth	Cord Bloods Tested	Retest Patterns	Number Retests
FA	1172	AA	147
FAS	70	AS	18
FAC	27	AC	12
FA Bart's	20	AA	13
FS	1	SS	1
FC	1	CC	1
FAC Bart's	1	AC	1
FAS Bart's	2	AS	2
FA "X"	2	AD	1
FA + 2 fast bands	1	F + A + fast band	1
F + "A" + "S" — Methemoglobin	1	AS	1

mentioned AD, with the remainder being five AC's and four AS's. It should also be noted that in several instances trait or disease cord blood results obtained by the State Laboratory were changed by CDC after having completed their more sophisticated testing.

Discussion

Assuming that screening large populations of Blacks for hemoglobin variants, especially the sickling disorders, has significant merit such testing in the newborn period offers some distinct advantages.

First, it offers a screening technique to 100% of the Blacks born in United States hospitals, a percentage far above that possible at a later point in life.⁸ Indeed, it may be the only testing that will ever be done on these individuals. For instance, in the present investigation, while all the mothers in the study consented to one year retests on their infants, 29% of the children with the trait or disease did not return for scheduled recheck appointments. The mothers were notified three times with the constant option of changed appointment time or date. Another 22% had moved since the time of delivery and had no known address at the time of retest. This lack of patient compliance and frequent mobility among the inner city patient population are other reasons why detection at birth might be superior to later "hit and miss" attempts at testing.

HEMOGLOBINOPATHIES—Ralston et al

Table III—Cord Blood Hemoglobin Percentages

% FA	90.3
% FAS	5.4
% FAC	2.1
% FA Bort's	1.5
% FA + other trait	0.23
% FA Bort's + other trait	0.23
% Disease	0.15
% FAS + other trait	0.08

In addition, the postpartum hospital stay might be the ideal time for genetic counseling to be given to both parents. The new mother would be available, concerned, and have time to comprehend the information. If necessary, re-explanation or additional information is more readily accessible.

Furthermore, on rare occasions, an alpha Thalassemia syndrome would be detected by an elevated Bart's hemoglobin level in the newborn. This moiety can disappear by three months of age and obscure the diagnosis at a later date.⁸

Lastly and most importantly, the diagnosis of the disease state at birth (Hbs SS and SC especially) alerts the physician to the possibility of a severe crisis. If undetected, there can be considerable morbidity even during the first 12 months of life.^{9,10}

The method of screening cord blood should be considered. Electrophoresis at an alkaline pH on cellulose acetate and an acid pH on citrate agar has been advocated as ideal. Use of conventional cellulose acetate alone may not allow detection of the low concentration of Hbs S and C that exist at birth in the heterozygote; while citrate agar alone would not permit identification of several variants like Hbs E, O, and G which move like Hb A in this acid medium.¹¹ Some modifications of cellulose acetate technique⁸ and a radioimmunoassay method for less sophisticated laboratories¹² have also been shown to have merit.

In the present study, the combined electrophoresis methodology has certainly proved accurate. Only one mistake was detected out of 199 retests, representing a total error of 0.5%. This, too, was not a serious one of missed trait or disease. Additionally, if the testing is done in volume it is inexpensive, averaging less than \$5.00 per patient excluding technologist time. Results, similar to the current ones, were found in an earlier inves-

tigation in which 3,976 Black children were screened for sickle hemoglobinopathies. Of 138 retested, the original cord blood diagnoses were confirmed in all. The authors conclude that these combined techniques of cellulose acetate and citrate agar electrophoresis permit accurate neonatal diagnosis of both major and minor sickling disorders.¹³

Cation column chromatography, a newer method of studying cord blood should be mentioned in passing.¹⁴ After elution of the predominant neonatal fetal hemoglobin, the presence of Hbs S, C, and A can be ascertained. This is offered as a further check on the accuracy of the cellulose acetate and citrate agar electrophoresis.

No matter which techniques are employed, of course, the hemoglobin screens at birth will usually fail to show beta-Thalassemia trait,¹⁵ persistent fetal syndromes, and functionally aberrant mutants like the unstable hemoglobins. These await the definitive profile at age one year when the majority of children will have assumed the permanent hemoglobin status they will carry through the rest of their lives.

In spite of these considerations, however, it would appear that testing of cord blood offers significant advantages and that combined cellulose acetate and citrate agar electrophoresis is relatively inexpensive and extremely accurate for such studies.

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Traumatic Extubation With Laryngotracheal Injury

H.S. NAGARAJ, M.D., PAUL CRONEN, M.D. and RONALD SMITH, M.D.

Tracheal intubation for airway control is a mainstay in the successful management and transport of the critically ill. With routine use of tracheal intubation occasional reports of laryngotracheal trauma, such as laceration¹ and perforation,² have been published. Rupture of the trachea from over-distension of high pressure cuffs has been reported.^{3,4} Long-term effects from endotracheal tubes with low pressure cuffs include erosion of the tracheal mucosa,⁵ formation of granulation tissue, and stenosis.⁶

Case History

A 13-year-old white boy suffered a linear skull fracture as a result of being thrown from a horse. He was found unconscious and was transported to a local hospital. A physical examination showed that the patient had fixed and dilated pupils, extensor posturing and a left frontoparietal skull fracture. There were no other injuries noted. Because of the need for control and protection of the patient's airway during transportation to our medical center, a #7 French, low pressure cuff endotracheal tube was inserted via the nasotracheal route. During intubation, a stylet was not used and there was no evidence of bleeding or trauma. Upon his arrival at our center the patient had no evidence of direct trauma to the neck. A respiratory rate of 40 and a temperature of 102.8°F were recorded. Computerized tomography of the head showed frontal edema. The initial chest x-ray was within normal limits (Figure 1).

The patient's treatment consisted of restricting fluids, intravenous mannitol and elevating his head. Approximately four hours after he arrived, the patient became increasingly restless and forcibly removed his endotracheal tube with inflated cuff. A small amount of blood was noted in his mouth. Following this incident, the patient was managed with an oral airway, and blood gas determinations at that time revealed pH 7.52, pO₂ 83, pCO₂ 21. His respiratory rate was still 40. Approximately five hours after the self-extubation

his respirations became labored, the rate increased to 56, and his temperature rose to 105°F. Arterial blood gas determinations at that time deteriorated to pH 7.51, pO₂ 51, and pCO₂ 28 on 40% oxygen. Physical examination and a chest x-ray showed subcutaneous emphysema of the neck and pneumomediastinum (Figure 2). Laryngoscopy and bronchoscopy revealed laceration of the right vocal cord and fractures of the first and second tracheal rings on the right side. There was no evidence of laryngeal edema. A tracheostomy was performed and the patient was started on antibiotic therapy. His respirations became less labored and were normal the following day. Blood gas determinations following tracheostomy showed a pH 7.48, pO₂ 78, pCO₂ 36. The patient died nine days later because of his head injury.

Discussion

To our knowledge, fractures of laryngeal and tracheal rings are not reported as a complication of self-extubation. From this patient's history and our repeated examinations we do not believe that tracheal injury occurred at the time of the initial trauma. His intubation was without incident and the initial x-rays did not suggest existing airway injury when he was admitted to our hospital. Cuff overdistension was not shown radiographically. If this damage had occurred because of the intubation, subcutaneous emphysema should have been apparent soon after the time of injury, as noted in cases reported by Stauffer and Petty⁷ and Kumar et al.¹

Management of this type of injury is outlined and re-evaluated in a review by Lambert and

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LARYNGOTRACHEAL TRAUMA—Nagaraj, Cronen and Smith



Fig 1: Radiograph of the chest after initial endotracheal intubation revealing normal chest and mediastinum



Fig 2: Radiograph of the chest five hours after traumatic extubation showing subcutaneous emphysema of the mediastinum

McMurry.⁸ Such injuries should be managed by early airway control through careful intubation or tracheostomy, depending on the severity of injury to the trachea. Pneumothorax, another complication of this injury, should be ruled out. If operative treatment is required, nitrous oxide should not be employed for general anesthesia because of its reabsorption characteristics.

Although self-extubation is a fairly common occurrence, and is generally regarded as having minimal morbidity, attention needs to be given to the existence of subcutaneous emphysema, fever, and minor airway distress since significant

tracheal damage can be incurred. It is mandatory to secure properly all such tubes as well as the patient's extremities.

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Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Committee on Physicians' Health

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)

Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

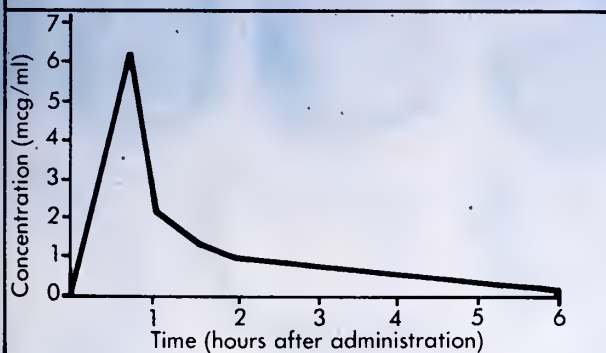
*Dosage should not result in a dose higher than that for adults.

†depending on severity

Half the dose
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Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{1/2}$ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

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Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED

Bottles of 100 Tablets
Bottles of 500 Tablets

Federal law prohibits dispensing without prescription

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RU-TUSS[®] EXPECTORANT

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Each fluid ounce of Ru-Tuss Expectorant contains:

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Pheniramine Maleate	
Pyrimamine Maleate	
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Alcohol	

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, allergic rhinitis. Also, for the temporary relief of symptoms associated with hay allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age: $\frac{1}{2}$ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: $\frac{1}{2}$ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

HOW SUPPLIED

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C. Pratap Reddy, M.D.

Introduction

The development of intracardiac recordings and programmed cardiac stimulation has provided considerable information regarding the mechanism, diagnosis and treatment of various types of supraventricular tachycardia encountered in clinical practice (Table 1). Except for the paroxysmal supraventricular tachycardia (PSVT), the arrhythmias listed in Table 1 can be easily recognized and treated. For instance, non-paroxysmal atrioventricular junctional tachycardia and atrial tachycardia with block are usually due to digitalis toxicity and discontinuation of the drug will result in disappearance of arrhythmia. Similarly, multifocal atrial tachycardia is frequently associated with acute or chronic hypoxic states and correction of hypoxia will usually relieve the arrhythmia. This presentation deals with the mechanism, clinical recognition and treatment of different types of PSVT listed in Table 2.

Mechanism

Paroxysmal supraventricular tachycardia may be due to enhanced automaticity or reentry. Programmed stimulation studies in man suggest that reentry is the underlying mechanism of most cases of PSVT.^{1,2} Only rarely, PSVT is the result of rapid generation of impulses from an ectopic focus. The various sites within the heart where reentry may occur are shown in Figure 1. Reentry

within the atrioventricular (AV) node is by far the commonest mechanism and accounts for more than 50% of all cases of PSVT. In about 40% of cases, reentry involving an atrioventricular accessory pathway (concealed or manifest) is the mechanism of PSVT. In the remaining, PSVT is due to reentry in the sinus node, the atria or the His bundle, or due to enhanced automaticity.² Intra-atrial reentrant tachycardia is not a well defined entity and intra His reentry is a very rare mechanism of PSVT.

AV Nodal Reentrant Tachycardia:

It is postulated that reentry mechanism in this type of tachycardia involves longitudinal dissociation of AV node into two pathways, alpha (slow), and beta (fast), connected at each end by a common pathway³ (Figure 2). The slowly conducting pathway has a shorter refractory period than the fast pathway such that a critically timed atrial premature beat can propagate to the ventricles only via the slow pathway because block develops in the fast pathway due to its longer refractory period. As the impulse propagates over the slow pathway to the bundle of His, it penetrates the unused fast pathway retrogradely and propagates to the atria resulting in reexcitation of the atria (echo beat)^{1,2,3} (Figure 2). If this echo beat returns to the ventricles and then sequentially reexcites the atria and ventricles, sustained reentrant tachycardia will be established. Thus, in AV nodal reentrant tachycardia, the antegrade and retrograde limbs of the reentrant circuit are formed

Grand Rounds

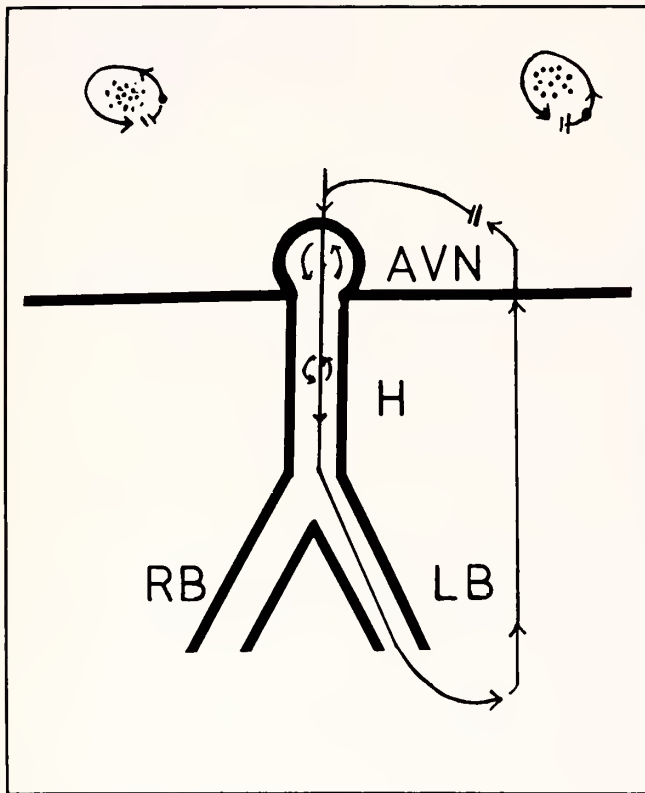


Figure 1: Sites of Reentry

Various sites of reentry which may result in paroxysmal supraventricular tachycardia are shown. The horizontal line divides the figure into atria (upper portion) and ventricles (lower portion). Sinus node reentry (left side) and intra-atrial reentry (right side) are shown in the upper portion of the figure. Also shown are: reentry within the atrioventricular node, bundle of His, and reentry involving an accessory pathway connecting the free wall of left ventricle with the left atrium. In reentry involving an accessory pathway, the reciprocating impulse propagates antegradely via the AV node, bundle branch system and retrogradely via the accessory pathway.

Abbreviations: AVN = atrioventricular node
H = bundle of His
RB = right bundle branch
LB = left bundle branch

by the slow and fast pathways, respectively. However, in a small percentage of patients with AV nodal reentrant tachycardia, these pathways are reversed and the slow pathway is utilized for retrograde conduction and the fast pathway for antegrade conduction.

Reentry Involving Atrioventricular Accessory Pathways:

Atrioventricular accessory pathways may be manifest or concealed.^{4,5} When the accessory pathway can propagate impulses in both directions, *ie* from the atria to the ventricles and from the ventricles to the atria, its presence is manifest

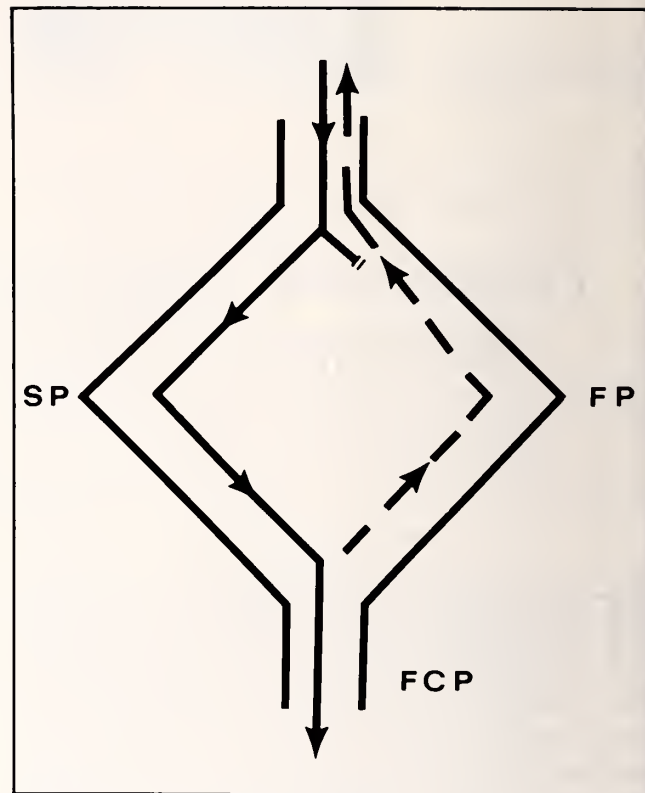


Figure 2: Dual Pathways in the AV Node

Functional longitudinal dissociation of AV node into slow (solid line) and fast (broken line) pathways is schematically depicted. An appropriately timed atrial premature beat will be blocked in the fast pathway because of its long refractory period, propagates slowly via the slow pathway to reach the final common pathway. Because the fast pathway was not used antegradely, the impulse can penetrate it and propagate retrogradely to the atria resulting in an echo beat. If reentry is sustained, paroxysmal supraventricular tachycardia will result.

Abbreviations: SP = slow pathway
FP = fast pathway
FCP = final common pathway

as ventricular preexcitation (Wolff-Parkinson-White pattern) on the surface electrocardiogram. However, when the accessory pathway can conduct only retrogradely, no manifestation of ventricular preexcitation on the surface electrocardiogram is present.

In reentrant supraventricular tachycardia involving an accessory pathway the reentry loop is long, incorporates discrete anatomic structures and the atria and ventricles are essential links in the reentry loop (Figure 1). The antegrade limb of the reentrant circuit is comprised of the AV node, His bundle and the bundle branches and the retrograde limb is comprised of the accessory

Grand Rounds

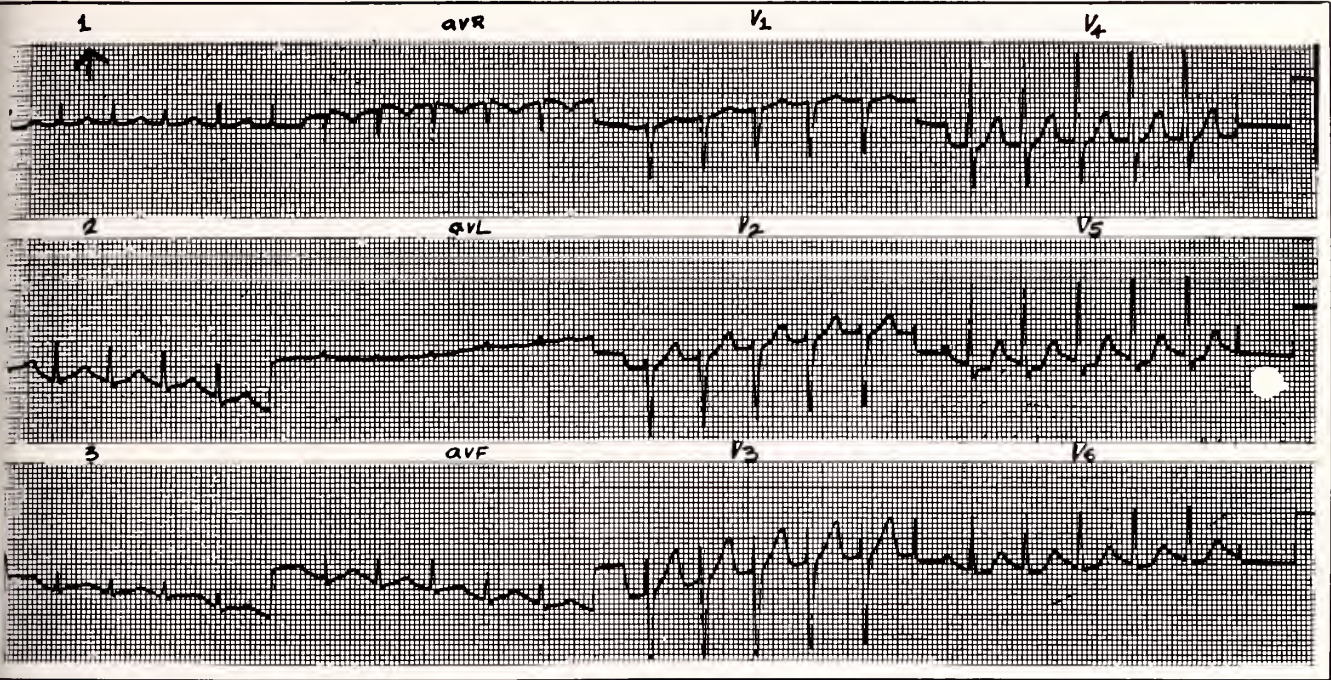


Figure 3: AV Nodal Reentrant Tachycardia
A 12 lead electrocardiogram recorded from a patient during an attack of paroxysmal supraventricular tachycardia is shown. Tachycardia rate is 150 beats/minute and no P waves are visible.

pathway. In patients with manifest Wolff-Parkinson-White syndrome, the refractory period of the accessory pathway is usually longer than the refractory period of the AV node such that a critically timed atrial premature beat will block in the accessory pathway and conduct via the AV node-His pathway to the ventricles. If conduction of an atrial premature beat through the AV node and the bundle branches is sufficiently delayed, adequate time is available for recovery of the accessory pathway which permits retrograde conduction to the atria resulting in an echo beat.⁴ If this reciprocation between the atria and ventricles continues, sustained tachycardia will result. In patients with concealed accessory pathways capable of conducting impulses only in the retrograde direction, a premature beat even without slow conduction may initiate the tachycardia. In these patients, an atrial premature beat without significant conduction delay may reach the ventricles and find the accessory pathway recovered because this pathway was not utilized for antegrade conduction.⁵

Sinus Node Reentry:

In patients with sinus node reentrant tachycardia, reentry occurs within the sinus node or its vicinity. A properly timed atrial premature beat reaches the sinoatrial (SA) node during the relative refractory period of the node, fails to engage one margin of the SA node and enters at another margin and propagates slowly through the sinus node, emerges from the node at the previously refractory margin and reexcites the atrium.⁶ Continued reciprocation of this impulse will result in sustained supraventricular tachycardia.

Automatic Atrial Tachycardia:

Automatic fibers are found in the SA node, in specialized fibers of the atria and in subsidiary pacemakers located throughout the specialized AV conducting system. Normally, the dominant pacemaker, SA node, keeps the subsidiary pacemakers suppressed. However, under the influence of certain physiologic conditions, pharmacologic agents or pathologic disorders, subsidiary pacemakers may demonstrate increased normal or abnormal automaticity and the resulting arrhythmia will become dominant.⁷

Grand Rounds

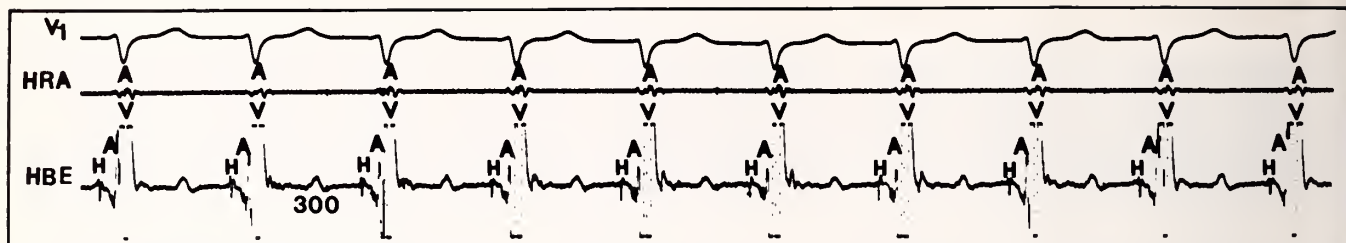


Figure 4: AV Nodal Reentrant Tachycardia

Intracardiac recordings obtained during an episode of induced PSVT from the same patient as in Figure 3 are shown. The tracings from top to bottom show ECG lead V₁ and intracardiac recordings from the high right atrium and His bundle electrogram. Note that during tachycardia atrial activation is simultaneous with the ventricular activation such that no P waves are visible during tachycardia. The AH interval during tachycardia measures 300 msec whereas HA interval is less than 40 msec.

Abbreviations: HRA = high right atrium
HBE = His bundle electrogram
A = atrial activation
V = ventricular activation

Clinical And Electrocardiographic Diagnosis of Different Types of PSVT

The techniques of intracardiac recordings have provided useful information which enables us to recognize the different types of PSVT from the surface electrocardiogram. The electrocardiographic characteristics of different types of PSVT are listed in Table 3.

AV Nodal Reentrant Tachycardia (Table 3):

Frequently, patients with AV nodal reentrant tachycardia are young and more than 50% of patients with this arrhythmia have no organic heart disease. Certain observations made at the onset of tachycardia and during the tachycardia provide important clues for diagnosing the AV nodal reentrant tachycardia.^{8,9} Tachycardia is always initiated by a premature beat with prolonged PR interval and the P wave configuration of the atrial premature complex initiating tachycardia is different from the configuration of the subsequent P waves. Rarely, this type of tachycardia may sustain in the presence of AV dissociation. In AV nodal reentrant tachycardia, functional bundle branch block is rare and when present, it does not influence the rate of tachycardia. During tachycardia, P waves are usually not visible and when visible, PR interval is many times longer than RP interval^{7,8} (Figures 3 and 4). However, in the uncommon variety of AV nodal reentrant tachycardia where the slow pathway is used for retrograde conduction and fast pathway for antegrade conduction, the RP interval is longer than the PR interval.

SVT Utilizing Accessory Pathways (Table 3):

Patients with this type of SVT are significantly younger than those with AV nodal reentrant tachycardia, usually free of organic heart disease, and have a higher incidence of paroxysmal atrial fibrillation.

The diagnosis of SVT utilizing a manifest accessory pathway can be made easily because during sinus rhythm the electrocardiogram will reveal ventricular preexcitation (short PR interval and delta wave) pattern. In contrast, the diagnosis of PSVT utilizing a concealed atrioventricular accessory pathway may be difficult and can be conclusively proven only by intracardiac electrophysiologic studies. However, certain electrocardiographic characteristics observed during SVT may suggest the utilization of a concealed accessory pathway in the reentrant circuit. These characteristics relate to the timing of the P wave in relation to the QRS, the relation between RP and PR intervals, the morphology of the P wave during tachycardia and the occurrence of functional bundle branch block and its influence on tachycardia rate.^{8,9} During tachycardia, the P wave falls outside the QRS (Figure 5), the RP and PR intervals are approximately equal and the P wave in Lead I is inverted (Figures 5 and 6).

Functional bundle branch block during PSVT utilizing a concealed accessory pathway is seen in more than 60% of cases. Thus, the mere occurrence of ventricular aberration during PSVT should suggest the presence of a concealed atrioventricular bypass tract. When SVT with and without aberrant conduction is observed in the

TABLE 1:

SUPRAVENTRICULAR TACHYCARDIA

1. Paroxysmal supraventricular tachycardia
2. Atrial tachycardia with block
3. Nonparoxysmal AV junctional tachycardia
4. Multifocal atrial tachycardia
5. Atrial flutter
6. Atrial fibrillation

same tracing, a decrease in tachycardia rate coincident with functional bundle branch block is virtually diagnostic of SVT utilizing an accessory pathway.¹⁰ During functional block in bundle branch ipsilateral to the bypass tract, the reentrant impulse must traverse the contralateral bundle branch and ventricular muscle to reach the accessory pathway. This increases the length of the reentry loop and slows tachycardia rate.¹⁰

Several other electrocardiographic observations made at the onset of tachycardia and during tachycardia may suggest or eliminate the possibility of SVT utilizing a concealed bypass tract (Table 3). Because atria and ventricles are essential links in the reentrant circuit, tachycardia utilizing an accessory pathway cannot sustain in the presence of atrioventricular dissociation.

Sinus Nodal Reentrant Tachycardia:

Sinus node reentrant tachycardia (Table 3) usually occurs in patients with organic heart disease, the tachycardia rate is usually less than 150 beats/min and can be always terminated by carotid

TABLE 2:

PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIAS

- A. Reentrant Tachycardias
 1. AV nodal reentrant tachycardia
 2. Tachycardia due to reentry involving a manifest or concealed atrioventricular accessory pathway.
 3. Tachycardia due to sinus node reentry
 4. Tachycardia due to intra-atrial reentry
 5. Tachycardia due to reentry within the bundle of His
- B. Automatic Tachycardias
 1. Atrial tachycardia
 2. AV junctional (His bundle) tachycardia

sinus pressure. The tachycardia is always initiated by a conducted or nonconducted atrial premature beat and the PR interval during tachycardia may or may not be prolonged. During tachycardia, the P wave always occurs before the QRS and the configuration of tachycardia P waves is similar if not identical to that of sinus P waves^{6,8} (Figure 7).

Automatic Atrial Tachycardia (Table 3):

Automatic atrial tachycardias may be permanent, incessant or paroxysmal and may or may not be initiated by a premature beat.^{7,11} At the onset, tachycardia shows gradual acceleration ("warming up") of rate and gradual deceleration ("cooling down") before termination. The configuration of P wave in the tachycardia initiating complex is different from that of sinus P wave but similar to that of subsequent tachycardia

TABLE 3:

ELECTROCARDIOGRAPHIC CHARACTERISTICS OF DIFFERENT TYPES OF PSVT

	AV Nodal Reentry	Reentry Involving Concealed AP	SAN Reentry	Intra-atrial Reentry	Automatic Atrial Tachycardia
Initiation of tachycardia by an APC	+	+	+	+	±
Prolongation of P-R interval in the APC initiating PSVT	+	±	—	—	—
P wave configuration of APC initiating SVT is similar to that of subsequent beats	—	—	—	—	+
Initiation of tachycardia by a blocked APC	±	—	+	+	±
Visibility of P wave during tachycardia	±	+	+	+	+
Relation of P waves to QRS during tachycardia	P during the QRS	P outside the QRS, in the ST segment	P before the QRS as in sinus rhythm	P before the QRS	P before the QRS
The RP-PR ratio	1:3 to 12	1:1.5	2:1	2:1	2:1
Inverted P in lead I during tachycardia	—	+	—	—	±
Tachycardia rate (range bpm)	110-210	170-220	130-200	130-200	120-180
Occurrence of functional bundle branch block during tachycardia	Very rare RBBB only	Very common. RBBB and LBBB	—	—	—

ABBREVIATIONS: PSVT = paroxysmal supraventricular tachycardia
APC = atrial premature complex
AP = accessory pathway

+ = yes
— = no
± = sometimes
BPM = beats per minute
RBBB = right bundle branch block
LBBB = left bundle branch block

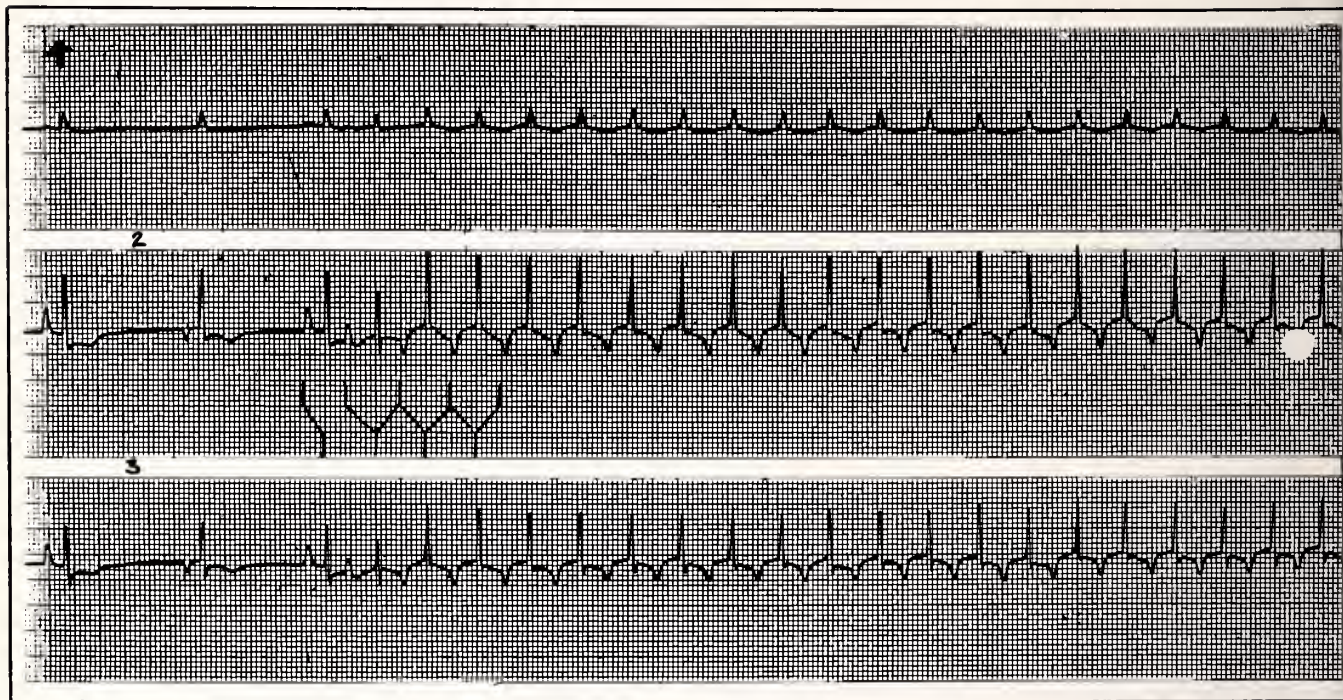


Figure 5: PSVT due to Reentry Involving a Concealed Atrioventricular Accessory Pathway

Onset of PSVT (ECG leads 1, 2 and 3) in a patient known to have concealed atrioventricular accessory pathway is shown. The first and third complexes are sinus, and the second one is an ectopic atrial complex. The fourth complex, an atrial premature beat with a prolonged PR interval, initiates PSVT. Note that during tachycardia P wave falls outside the QRS, and RP and PR intervals are approximately equal. During tachycardia P wave is inverted in lead 1. Normal PR interval and absence of a delta wave in sinus complexes rule out manifest Wolff-Parkinson-White syndrome.

complexes. Frequently, this type of tachycardia exhibits spontaneous variability in the rate and maneuvers and drugs which increase vagal tone do not terminate the tachycardia.⁷⁻¹¹

Treatment of PSVT

Proper management of patients with PSVT requires accurate diagnosis of the type of PSVT in consideration. In most patients this can be accomplished, as discussed earlier, by careful analysis of the electrocardiogram recorded during tachycardia. However, in a small percentage of patients intracardiac electrophysiologic studies may be needed to conclusively establish the diagnosis.

Before initiating therapy for the arrhythmia, potentially correctable predisposing and precipitating factors must be looked for, identified and corrected. These factors include congestive heart failure, thyrotoxicosis, drug toxicity, pericardial disease and electrolyte abnormalities. After this has been done the management involves: 1) treatment of acute episode of arrhythmia and 2) long-term prevention of recurrence of arrhythmia.

Treatment of Acute Episodes of Arrhythmia:

Termination of acute episodes of arrhythmia may be accomplished by maneuvers or drugs which increase vagal tone, slow conduction through the atrioventricular node and prevent reentry. In a small percentage of patients, carotid sinus massage and Valsalva maneuver terminate the arrhythmia. In others, edrophonium, phenylephrine, metaraminol or propranolol may be needed to terminate the arrhythmia. When these drugs fail to terminate the arrhythmia, intravenous digoxin is frequently effective.

It is expected that in the near future intravenous Verapamil (soon to be introduced in the United States) in doses of 5 to 10 mg will be the drug of choice for termination of acute episodes of PSVT.

Prophylaxis Against Recurrence of Arrhythmia:

In the vast majority of patients recurrence of arrhythmia may be prevented by drug therapy. However, in a selected group of patients refractory to drug therapy pacemaker or surgical treatment may be needed.

Grand Rounds

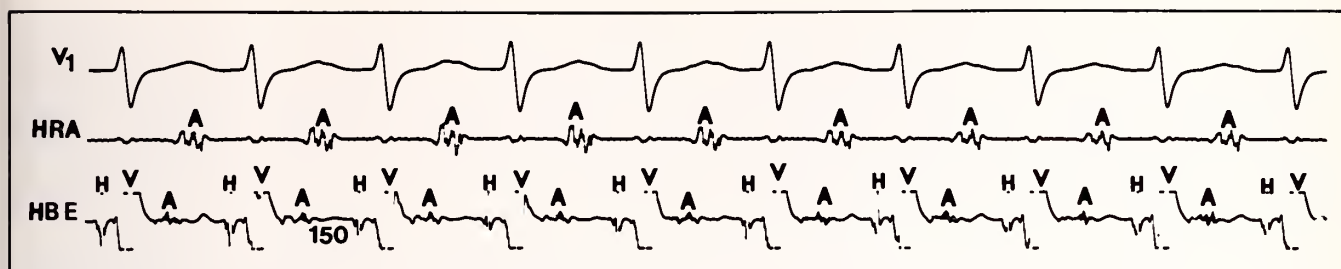


Figure 6: PSVT due to Reentry Involving a Concealed Accessory Pathway

Intracardiac recordings during PSVT from the same patient as in Figure 5 are shown. Tracings from top to bottom show ECG lead V₁, high right atrial electrogram and His bundle electrogram. Note that during tachycardia, atrial activation occurs outside the QRS complex and the AH and HA intervals during tachycardia are approximately equal.

Abbreviations: HRA = high right atrium

HBE = His bundle electrogram

Pharmacologic Therapy:

Drug treatment of arrhythmia involves the following approaches:

1. Elimination or suppression of the initiating causes, *ie* atrial or ventricular premature complexes
2. Creation of an imbalance in conduction and refractoriness of the reentrant circuit by producing:
 - a. an increase in the refractory period of one or more components of the reentrant circuit
 - b. conduction delay and/or block in the reentrant circuit
 - c. enhancement of conduction in a portion of the reentrant circuit

Initially, treatment may be attempted on an empiric basis using standard drugs. A given drug may be used in increasing doses until either effective suppression of arrhythmia is achieved or toxicity supervenes. Depending on the frequency of attacks, this approach may take a few days to several weeks or months to determine whether a drug is effective. Empiric approach is the best for the patient with frequent episodes of tachycardia which is tolerated. However, empiric drug therapy is not advisable in patients with infrequent episodes of tachycardia which is tolerated poorly. In these patients, serial electrophysiologic studies with acute drug testing with different drugs or drug combinations is indicated.¹² Different drug regimens are tested on sequential days and a drug or combination of drugs that prevents initiation of tachycardia in the laboratory is chosen for

chronic oral therapy. The results of such drug studies performed in the laboratory correlate well with subsequent suppression of tachycardia during chronic oral drug therapy.¹²

Specific Pharmacology of PSVT

AV Nodal Reentrant Tachycardia

In most patients with this arrhythmia, tachycardia may be successfully prevented by digoxin and/or propranolol. These drugs "block" the reentrant pathway in the AV node and prevent perpetuation of tachycardia. Verapamil by its direct effect on the AV node will accomplish similar results. Verapamil, when it becomes available in this country, will provide considerably greater flexibility in the management of patients with this arrhythmia. When these drugs fail, class I antiarrhythmic drugs such as procainamide and quinidine may be used with good results. This group of drugs prevents the arrhythmia either by eliminating extrasystoles which initiate the tachycardia or by blocking "fast" AV nodal pathway of the reentry circuit.

Accessory Pathway Reentrant PSVT:

In these patients the same drugs mentioned above will effectively prevent the arrhythmia. However, in addition to digitalis, most patients need quinidine or like drugs. Digitalis increases the refractory period of the AV node while quinidine-like drugs increase the refractory period of the accessory pathway. In patients with overt Wolff-Parkinson-White syndrome and short refractory period of the accessory pathway digitalis

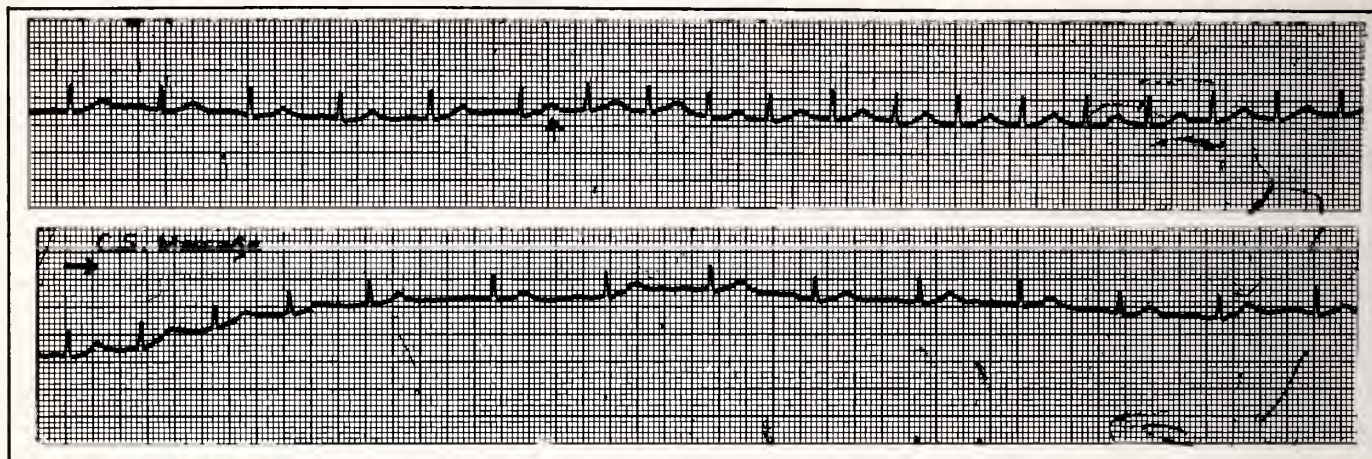


Figure 7: Sinus Nodal Reentry

Rhythm strip recorded from a patient during the onset and termination of tachycardia is shown. The first six complexes show sinus rhythm. The seventh complex marked by an arrow is an atrial premature beat which initiates PSVT with a rate of 130 beats/minute. Note that during tachycardia P wave falls on the descending limb of the T wave (before QRS) and RP is longer than the PR interval. P wave configuration of tachycardia complexes is similar to that of sinus complexes. Lower strip shows slowing followed by termination of PSVT with carotid sinus massage.

therapy is contraindicated because if atrial fibrillation occurs in these patients, the atrial impulses will preferentially propagate to the ventricles via the accessory pathway producing rapid ventricular response and in some instances ventricular fibrillation.

Sinus Node Reentrant Tachycardia:

There are no data available on the drug therapy of this arrhythmia. It is our experience that most patients can be managed with digoxin and/or quinidine.

Automatic Atrial Tachycardia

Frequently, this tachycardia cannot be suppressed. The obvious therapeutic goal in these patients is to control the ventricular rate by blocking some of the atrial impulses at the AV node. This can be accomplished by treatment with digoxin and/or propranolol.

Pacemaker Treatment

In selected patients, a variety of atrial and ventricular pacing techniques may be used for effective prevention of PSVT.¹³ The different modalities of pacing used to terminate or prevent PSVT include atrial demand, AV sequential, simultaneous atrial and ventricular pacing, and radio frequency atrial or ventricular pacing. Because pacemaker treatment of PSVT is highly in-

dividualized, before a pacemaker is implanted, the mechanism of PSVT should be carefully defined by electrophysiologic studies. Thus, the decision to implant a pacemaker for prevention of PSVT attacks should be made in centers where thorough electrophysiologic studies can be performed and the mechanism of the tachycardia delineated.

Surgical Treatment

Surgical therapy can now be recommended to patients who suffer from frequent and disabling episodes of tachycardia and fail to respond to drug or pacemaker therapy. In patients with manifest or concealed atrioventricular accessory pathways, these pathways can be localized by electrophysiologic studies and epicardial mapping and surgically ablated.⁴ When surgical ablation of an accessory pathway is not feasible tachycardia can be successfully prevented by cutting the AV node and His bundle. Because such destruction of the AV node and His bundle results in complete AV block, these patients become dependent on permanent ventricular pacing. Excision of arrhythmogenic foci in some patients with automatic atrial tachycardia now appears feasible.¹⁴

Summary

Paroxysmal supraventricular tachycardia is due to reentry mechanism and consists of several elec-

Grand Rounds

trophysiologically distinct arrhythmias. The most common mechanism is AV nodal reentry although other mechanisms are not infrequent. Rational approach to treatment of this arrhythmia depends on the knowledge of mechanism of the arrhythmia. In most cases, the underlying mechanism can be diagnosed on the basis of certain clinical and electrocardiographic characteristics and appropriate pharmacologic, pacemaker, surgical therapy or a combination of these modalities recommended for different subsets of patients.

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The knowledge business



It's About That Time of the Year

I don't know how I found them. I remembered them. They were famous. And with a little bit of luck I dug them up.

Just what did I dig up? They are three classical editorials written a few years ago by Doctor Felix Marti-Ibañez, former editor of "MD Medical Newsmagazine." Years later because of their popularity they were published in book form as a trilogy. Perhaps you remember them. "To Be A Doctor," November 1960; "The Young Princes," May 1961 and "The Race and the Runner," September 1965. These essays come to mind at this particular time of the year as about 8,000 students enter medical schools across our country in pursuit of becoming a doctor.

Can you still remember how it was? Looking back from our present vantage point, we see that being a doctor is easy, but getting to be one is (and was) the hard part. The struggle (and the doubt) about even getting into medical school was constant. One could not be content with just a passing grade in undergraduate school. All A's and only an occasional B were virtually mandatory to have any chance at all for consideration of admission.

After admission came the hard part. We had long hours at school and even longer hours at home or in the dorms, studying for the weekly quiz. Many of my contemporaries say they would not go through that first year of medical school for anything in the world. This then, as Doctor Marti-Ibañez states, "is the glory and the misery of the medical student in history."

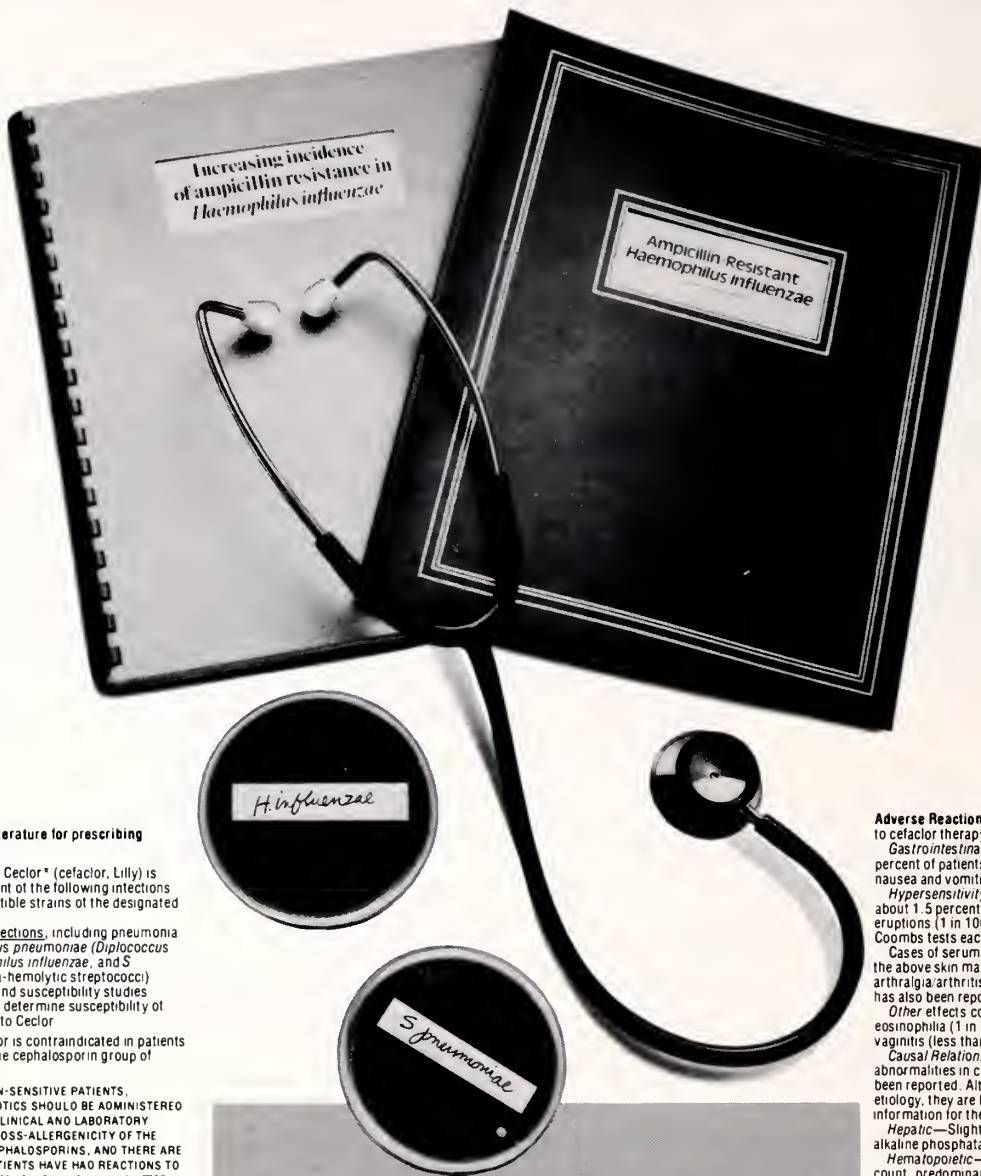
To "my" 8,000 young princes who have just embarked on the pathway to be a doctor, I wish them well. They are "la creme de la creme" of our society. The road is long and difficult, but the rewards are far greater than any monetary return. To quote again Marti-Ibañez, "Ever since the day you first said those magic words, 'I want to be a doctor,' you have been wrapped in the ideals, wisdom, endeavors and achievements of our glorious predecessors in medicine."

There seems to have been a trade-off in medical school over the past decade. Getting in is now more difficult, but getting out seems easier. The salaries being paid to house officers are better and good training is available almost everywhere.

So let the drums roll and the bells toll. The torch is being passed, once again, about this time of the year.

Milton F. Miller, M.D.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefclor* (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

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Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids. Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in terrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefclor therapy are uncommon and are listed below: **Gastrointestinal** symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[3030808]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor* (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8:91, 1975.
2. Antimicrob. Agents Chemother., 11:470, 1977.
3. Antimicrob. Agents Chemother., 13:584, 1978.
4. Antimicrob. Agents Chemother., 12:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II, 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630.



AUXILIARY

There is a very special need to serve medical education, now more than ever, with our medical schools receiving less funds. We can meet this need by combining our efforts in support of the American Medical Association - Education Research Foundation.

Questions have been raised at times as to how our funding helps the foundation. Did you know that approximately two-thirds of all AMA-ERF funds are contributed by individual physicians and from the fund-raising efforts of Auxiliary members. Contributions from foundations, pharmaceutical and other industries and businesses, county and state medical societies, and the public account for the other third.

Each and every donation to AMA-ERF goes to the medical school or fund designated by its contributor. If it is earmarked by a contributor for a particular medical school, it will go to that school; if contributed to the Medical Education Loan Guarantee Fund, it will go to that fund; if no particular school is designated, it will be divided equally along with other undesignated funds, among all AMA-approved medical schools.

A donation through AMA-ERF to a medical school gives the school of your choice a definite financial advantage. Since AMA-ERF gifts to medical schools are unrestricted, the school may use the money to best suit its needs. However, if you wish to designate a specific use for your gift, your wish will be honored if at all possible.

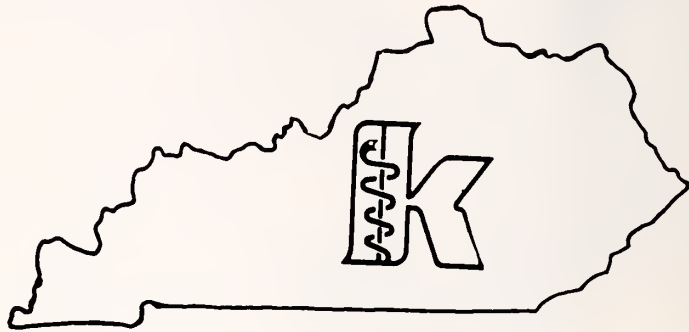
In March 1981, \$1,282,599 was distributed to the deans of our 126 medical schools. Every March, each dean is given a check equal to all the contributions designated for his school during the previous year. The Auxiliary received special recognition for efforts in support of AMA-ERF during the KMA's House of Delegates session. This year \$16,152.27 was given to Acting Dean Kmetz, U of L, and \$8,000.00 to Dean Clawson, U of K. We have been informed by the Deans that the funds are used to enhance educational and research programs, to fund summer research scholars, to support Student Affairs and faculty research, and most important to the deans is the use of these flexible funds.

We appreciate your support of the Auxiliary's endeavors to raise funds for AMA-ERF. These funds have been raised with your help through our Christmas Sharing Cards, Holiday Auctions, Christmas Cards, state projects as the Quilt this past year, and also the Remembrance Cards—Congratulations, Get well Soon, Thank You, In Memoriam, and The Value of Your Service, also called the Physicians Courtesy card. You may also consider giving this year's gift to the school of your choice for scholarship or whatever you may designate through the Auxiliary. We can pool our resources and make an all-out effort to support this medical need together. Invest in the future of health care and medical education through AMA-ERF.

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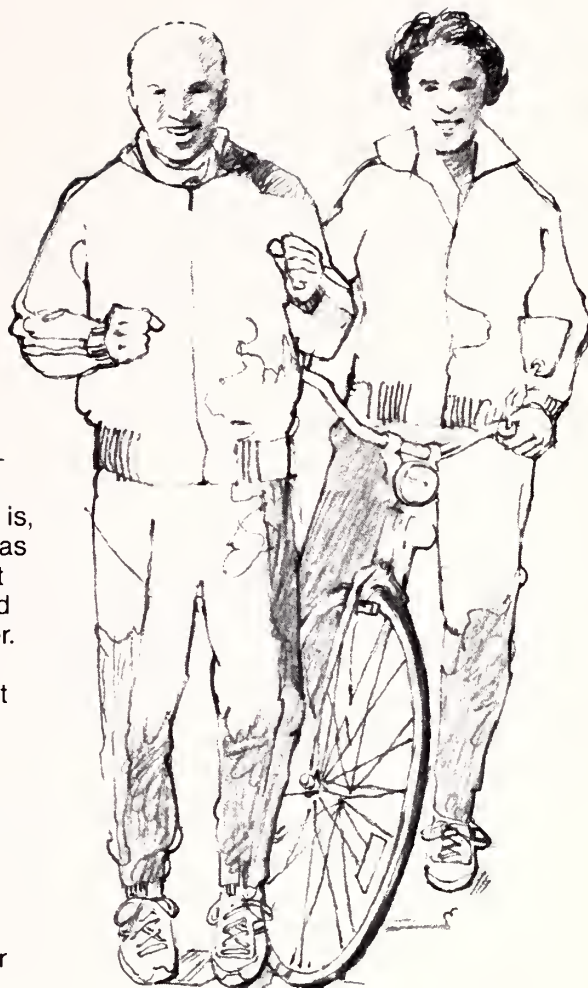
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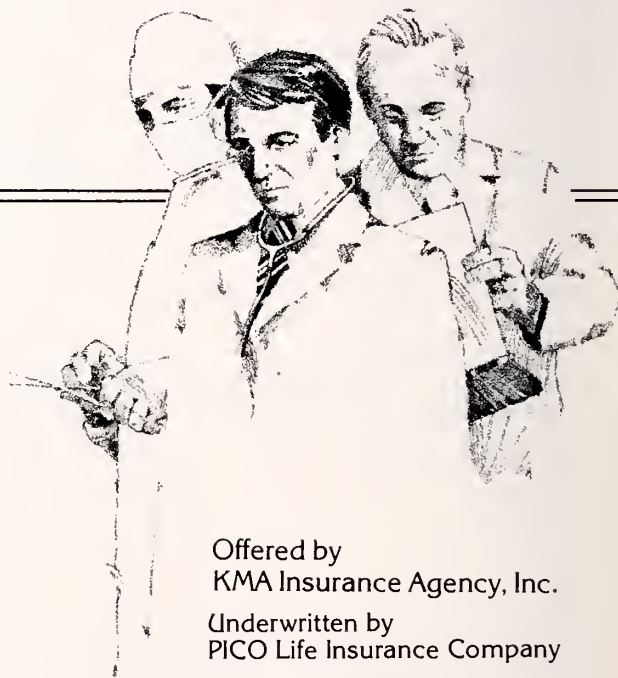
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[†]Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. The following is a brief summary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and

triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly determine serum K⁺ frequently, both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both; hyperglycemia and glycosuria (diabetic insulin requirements may be altered); hyperuricemia and gout; digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. Dyazide[®] interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with Dyazide[®], but should it develop, corrective measures should be taken such as potassium supplementation or increased

dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and Dyazide[®] should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. Dyazide[®] should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of Dyazide[®], although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak[™] unit-of-use bottles of 100.

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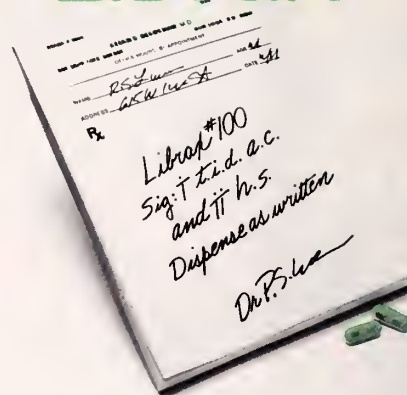


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Specify Librax[®]



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective, as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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References: 1. Sullivan MA, Cohen S, Snape WJ. *N Engl J Med* 298:878-883, Apr 20, 1978.
2. Snape WJ et al. *Gastroenterology* 72: 383-387, Mar 1977.

Specify **Librax**®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety/Antisecretory/Antispasmodic

*Librax has been evaluated as possibly effective for this indication. Please see summary of prescribing information on facing page.

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Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Precautions and Adverse Reactions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate—it makes sense.
And it's responsible medicine.**

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed, New York, Raven Press, 1978, pp. 391-404.

Tenuate[®] ^{IV}
(diethylpropion hydrochloride USP)

Tenuate Dospan[®] ^{IV}
(diethylpropion hydrochloride USP)
controlled-release
AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine[®]) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

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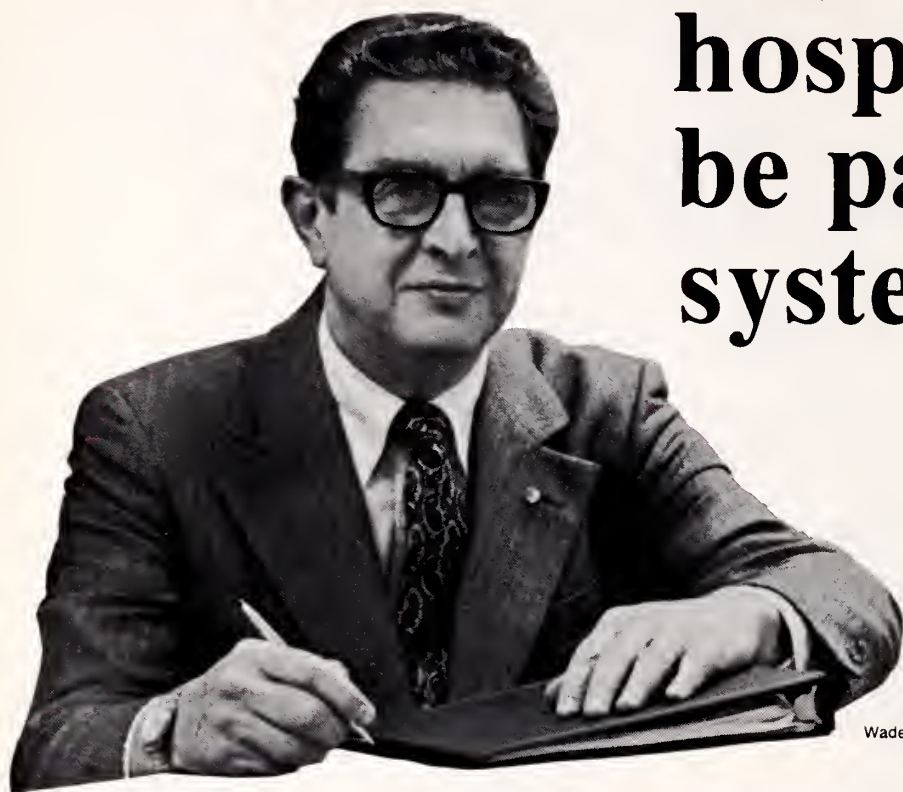


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Medical Antishock Trousers: A Valuable Adjunct to Emergency Care

Sharon Wells, M.D., Anthony J. Suruda, M.D., G. Richard Braen, M.D.

Trauma with uncontrolled hemorrhage and shock is a leading cause of death in persons between 0 and 40 years of age. Pneumatic anti-shock suits are gaining widespread acceptance as an adjunct to the treatment of hemorrhagic shock in the pre-hospital and hospital setting. They have proven to be particularly useful during transportation of patients from geographically isolated settings to and between hospitals, when intravenous fluid infusions may be difficult to start and maintain. In the hospital they are beneficial by allowing necessary time for mobilization of laboratory, radiology and operating room staff, and for obtaining and preparing blood for transfusion. Medical Anti-Shock Trouser (M.A.S.T.) devices have also demonstrated versatility in pre-hospital and hospital settings in situations other than hemorrhagic shock. The purpose of this article is to review the use of pneumatic antishock suits and encourage their further investigation and use in this state.

Case Reports

A 28-year-old male was admitted to the emergency department of a hospital in Eastern Kentucky following a gunshot wound to the abdomen inflicted one hour prior to arrival at that hospital. He had previously been in good health. He was noted to be hypotensive and to have a gunshot wound in the lower left quadrant of the abdomen with diminished pulsations in the left femoral artery. Three large gauge intravenous lines, one central and two peripheral, were placed in the patient and he was put in an ambulance and transferred to the University Hospital Emergency Department of the Albert B. Chandler Medical Center in Lexington. At the time of departure, his blood pressure had been 110/70 and during the 90 minute transfer he received approximately 3.5 liters of I.V. fluids. He became progressively hypotensive while being transported and on arrival at University Hospital he was comatose with a blood pressure of 50 palpable, pulse 100 and respirations of 14, shallow. He was extremely pale. Neck

veins and all peripheral veins were flat and his skin was vasoconstricted. His pupils were mid-position and reacted weakly. There was a gunshot wound in the left lower quadrant of the abdomen with no exit wound. The abdomen was markedly distended and rigid. The left femoral pulse was absent. A hematocrit was 18%.

Because of the extreme hypovolemia, it was impossible to start another intravenous line and a cutdown attempt was made. The patient was intubated and ventilation was assisted. Medical Anti-Shock Trousers were applied and within 45 seconds after inflation, the blood pressure rose to 110/0, the patient's neck veins became distended and the patient regained consciousness. He was then taken to the operating room for an exploratory laparotomy. The findings at surgery revealed injury to the left internal iliac artery and multiple bowel perforations. His vessel injuries were repaired and the bowel resected. The patient had a stormy post-operative course, developed disseminated intravascular coagulation, hypothermia, and renal failure. He became septic, hyperkalemic and comatose, and died of cardiac arrest on the third hospital day.

History

The use of circumferential external counterpressure to maintain blood pressure and control bleeding in hypovolemic patients was first described by Crile in 1903.³ The rubber pneumatic suits used at that time were effective, but plagued with leaks and with advances in the technique of blood transfusions, Crile's methods were abandoned. During World War II, pneumatic "G-suits" came into wide use by dive-bomber pilots to prevent blackouts during steep dives. "G-suits" were adapted for use in the transportation of soldiers with massive trauma during the war in Vietnam and came to be known as "Military Anti-Shock Trousers." In 1973 Kaplan and others were the first to study civilian utilization of such inflatable trousers by pre-hospital emergency medical personnel.^{8,11}

Description

The "G-suit" was originally a rubber sack enclosing the lower half of the body and laced up the front. Medical Anti-Shock Trousers currently marketed are polyvinyl wrap-around trousers inflatable by a foot pump and removable tubing. The suits extend from ankle to xiphoid with an opening for urinary catheter placement. Two recent models are the MAST III-A® suit by David Clark Company and JOBST Anti-Shock Air Pants®. The Clark version has three separate and removable chambers which can be selectively inflated and deflated, each with a pressure relief valve which "pops off" at 88 to 120 mmHg. Inlying manometers for these suits may be available from the manufacturers in the near future. Adult and pediatric models are available. The JOBST model differs in having pressure gauges rather than relief valves, one gauge for the entire suit on the standard models, and gauge for each compartment on the "super" model.

Mechanism of Action

The circumferential external pressure generated by MAST devices aids in the treatment of shock in two ways. Blood pooled in the venous circulation of the lower extremities and lower abdomen is mobilized as in leg elevation, but more effectively. It has been hypothesized that an estimated 750-1000 cc of autologous, normally clotting blood is rapidly transferred into the cardiopulmonary and cerebral circulations where the earliest and most rapidly fatal effects of hypovolemia occur. This auto-transfusion both raises the patient's blood pressure and distends upper extremity veins, facilitating the placement of intravenous lines. Recent experiments with radioisotope labeling and scan techniques suggest that the actual transfer of blood volume to the central circulation is smaller, on the order of 200 cc, and that the suits function primarily by changing peripheral vascular resistance¹³.

External counterpressure by pneumatic trousers tamponades intra-abdominal and lower extremity blood vessels by reducing the difference between intraluminal and extraluminal pressure. The combined effects of lowered vessel wall tension, decreased area of laceration, and diminished blood flow may allow the patient's own clotting mechanisms to take effect. In case of abdominal aortic laceration or ruptured aneurysm, adjacent viscera are compressed against the site of injury, reducing the size of the defect to control hemorrhage. In addition, antishock trousers effectively splint pelvic and lower extremity fractures during transportation of injured patients.

Indications For Use

MAST suits should be used whenever indications of hypovolemic shock exist, and definitive medical or

surgical care must be delayed pending pre or intra-hospital transport and/or the preparation of blood and surgical facilities. An adult patient with a systolic blood pressure of less than 80 mm Hg in the presence of intra-abdominal hemorrhage from blunt or penetrating trauma or ruptured aortic aneurysm should have antishock trousers applied in the field. After arrival at the hospital they may be removed carefully only after intravenous fluids are given, blood is available and the operating team is ready. Hypotensive patients with pelvic and femoral fractures and attendant retroperitoneal and compartmental hemorrhage are benefited by both hemorrhage control and splinting.

There are many successful case reports of non-trauma uses of anti-shock trousers. These include upper and lower gastrointestinal bleeding, coagulopathies with hemorrhage, hypotension due to drugs or spinal anesthesia, post-partum hemorrhage,⁶ ruptured ectopic pregnancy,⁶ post operative bleeding following a hemorrhage,¹⁷ intractable bleeding from pelvic fractures,^{5,12} and as a rapidly reversible fluid challenge for differentiating hypovolemic from cardiogenic shock.²⁰ Persons who for religious reasons will not accept blood transfusions may temporarily benefit from the use of antishock suits in cases of hemorrhage.

Problems and Contraindications

Eleven potential problems with and contraindications to the use of MAST trousers have been documented.

1. Inspection and palpation of covered areas is limited. This is a genuine concern to the receiving physician. However, X-rays may be taken through the suits while the patient is receiving necessary fluids and blood to allow cautious and carefully monitored deflation of the suit in the emergency department or preferably, the operating room.

2. Breathing may be restricted by increased abdominal pressures. Case reports in the current literature vary from no patient difficulty¹² to respiratory distress relieved by partial deflation of the abdominal compartment,⁴ to the need for bag and mask, or intubation with ventilator assisted respirations.⁵ Care must be taken not to involve the thorax as MAST trousers are applied. They should be used cautiously in patients with impaired pulmonary function, such as COPD or multiple rib fractures and respirations must be monitored carefully. If partial deflation of the abdominal compartment is indicated, this must be done with careful monitoring of the patient's blood pressure.

3. Decreased blood flow to covered areas may result in ischemia or specific organ dysfunction in covered areas. There have been cases of renal failure in patients treated with pneumatic units. However, these patients had periods of hypotension prior to placement of the

suits and massive transfusions, both of which are known to be associated with renal failure. Many more cases have been reported with no renal damage following prolonged use of antishock trousers. MAST devices should be used with caution in patients with pre-existing renal disease, and urine output via catheter must be carefully monitored in all patients during and after prolonged antishock trouser use. Reports of damage to lower extremities from MAST devices have varied from none to minor changes, to anterior compartment syndrome and limb loss.¹¹ These complications followed prolonged (>3 hours—up to 48 hours) use of external counter-pressures. Limb loss occurred in patients with comminuted lower extremity fractures.

4. Metabolic acidosis may develop during the use of or following deflation of antishock trousers. In experimental studies of MAST devices used in dogs, significant acidosis following deflation has been documented.²⁰ This has not yet been documented to be a significant problem in humans, but some authors recommend the administration of 1-2 ampules (44-88 mg) of bicarbonate prior to or after deflation of the suits, and arterial blood gas pH monitoring during deflation is indicated.^{14,20}

5. Congestive heart failure or pulmonary edema might be caused or intensified. Anti-shock suits should not be used if either of these conditions is already clinically evident.

6. Emesis, urination or defecation might occur. Some authors suggest placement of a nasogastric tube prior to use of MAST devices. There has been one case mentioned on the literature of a patient who did not have a nasogastric tube in place and died of aspiration.¹² Urination should be monitored by catheter placement as soon as possible after application of MAST trousers.

7. Blood loss from injuries above the level of the suit may be accelerated. Bleeding from external wounds above the level of anti-shock trousers should be controlled by direct pressure. The use of MAST suits in cases of intrathoracic injury is controversial, but there have been case reports of successful reversal of hypotension in patients with lung and intrathoracic vessel lacerations.^{4,17} Experimental evidence using dogs indicates that MAST trousers may be beneficial in cases of cardiac tamponade with hemodynamic decompensation as well.⁶ MAST suits should be used with caution in patients with intrathoracic blood loss, but may reverse life threatening hypotension in these cases.

8. In cases of cerebral trauma, intracranial pressure might be elevated. In experiments with dogs, no clinically significant increase in intracranial pressure with the use of pneumatic trousers has been shown, and cerebral perfusion pressure (mean arterial pressure minus intracranial pressure) was calculated as im-

proved in all groups.^{2,5} It has been postulated that the increase in PCO₂ with metabolic acidosis, which may occur on deflation of mass trousers, could increase cerebral edema and must be monitored.⁵ Data from these studies support the use of pneumatic garments in hypovolemic patients with head injury.

9. Deflation by inexperienced personnel may produce shock. Anti-shock trousers should only be deflated when adequate intravenous lines have been established, blood is readily available and operating room staff are prepared to repair the site of hemorrhage. Blood pressure must be carefully monitored as the garment is slowly deflated.

10. The use of Medical Anti-Shock Trousers on pregnant patients has not been studied. In the case of known or obvious pregnancy, particularly the second or third trimester, inflate leg compartments only.

11. The suits are expensive. Current models range from \$400 to \$800.00. Ambulance personnel may not be able to retrieve a suit for hours or days after it has been placed on a patient. For these reasons, hospitals and ambulance services in a region may wish to co-operate in purchasing exchangeable anti-shock suits.

Instructions for Use

1. Adequacy of airway and ventilation are the first priorities in any situation.

2. Check for the pressure of pulse; check vital signs; institute necessary basic and advanced life support.

3. Attempt to place intravenous lines and start fluid therapy.

4. If the patient is hypotensive, open the suit and place it under the patient. Apply sterile dressings to open wounds and pad pressure points if prolonged wear is anticipated.

5. Wrap the legs, then the abdomen to just below the costal margin.

6. Secure any Velcro® fasteners.

7. Connect the foot pump and tubing to the appropriate compartmental access valve.

8. Using the foot pump, inflate the trousers to 15 mmHg and recheck the blood pressure; if it is still <80 mmHg (adult) raise the pressure in the suit to 30-40 mmHg and recheck the blood pressure. If no pressure gauges are available, or if the patient's blood pressure is still inadequate, inflate the suit to whatever pressure is necessary to raise the patient's blood pressure to the range of 90 to 100 mmHg. The suit should not be inflated in excess of 100 mmHg at any time.

9. If the compartments are separately inflatable, inflate the leg compartments first, then the abdominal compartment.

10. Close all of the valves and remove the tubing and the pump.

11. Transport

12. Carefully monitor vital signs.

13. Electrocardiograms, X-rays and foley catheter placement may be done with the suit in place.

14. Prepare for blood transfusions; replace volume with crystalloids and blood, and mobilize the operating room staff as rapidly as possible or arrange transport to trauma center or other facility.

Deflation

1. Check the vital signs.

2. Never deflate the suit in the field except to further control hemorrhage and then rapidly re-inflate the suit.

3. The suit may be deflated in the operating room if intraabdominal hemorrhage is suspected, when adequate blood replacement has been given and/or when personnel are ready to operatively control hemorrhage.

4. Deflate the abdominal compartment first, then each leg compartment separately.

5. Deflate by increments, constantly monitoring the blood pressure. At each 5 mmHg drop in blood pressure discontinue deflation until further volume replacement has occurred. The total time for this may be 20-30 minutes.

6. Monitor the arterial pH. Hyperventilate the patient and administer bicarbonate if necessary to treat acidosis.

Cleaning

Currently available models of anti-shock trousers may be machine washed or wiped clean. They may be cold sterilized using the same products and procedures as for other surgical rubber products. All air tubing valves must be closed during cleaning to prevent solutions from entering the trousers.

Conclusion

Medical Anti-shock Trousers have been shown to be beneficial in the treatment of hypovolemic shock in the field, during transport and in the hospital. They are routinely used by emergency medical services throughout the country in both urban and rural settings. This one case report from our hospital demonstrates the immediate, but unfortunately not the long term successful use of M.A.S.T. suits. We believe that if an anti-shock suit had been used during the transport of this patient his hypovolemic shock could have been stabilized and his chances for survival much improved. Because Kentucky has many rural communities from which critically ill patients must be transported, we strongly encourage physicians and emergency medical service personnel to investigate, have available and use Medical Anti-shock suits.

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Review of Medical Physiology 10th Edition

W.F. Ganong, Lange Medical Publications, 1981, 628 pages

Doctor Ganong has graciously extended his valuable, highly usable review of pertinent medical physiology. This book is a distillate of the biennial progress made in physiological science. That tenuous marriage between the physician and the researcher weds the necessity for information with the generation of novel thought. As a physiologist, respected author and man of medicine, Ganong uses his universal perspective to teach us our lessons in physiology.

The first third of the book covers the nervous system, its physiochemistry and its member sensory organs. Adequate division in this section permits specific reference material without search time. Endocrinology and metabolism follow with much information additional to past volumes. Subsequent sections are de-

veloped by taking each organ and discussing its physiology. This method is useful in organizing a review and is helpful for using this book as a reference.

Photographs throughout the book are archaic and of poor quality. However, the photomicrographs and diagrams are outstanding. In many areas the non-text material is allowed large space, in some areas covering an entire page. Telescoping these parts would permit either a smaller book or more material for the same price.

The paperback economy continues to hold the line against inflationary pressure. A modest price, extensive material, references galore and complete indexing make the *Review of Medical Physiology* a worthwhile acquisition.

Wide Neighborhoods, A Story of the Frontier Nursing Service

Mary Breckinridge, University Press of Kentucky, 1981, 371 pages

Eastern Kentucky was the setting for the birth of the Frontier Nursing Service. Its founder has autobiographically chronicled the development of this health service in an interesting but promotional way. As heir to substantial finds and as an internationally educated young woman, Mary Breckinridge embarked in a messianic fashion to her ancestral home with the benevolent purpose of bettering health care. To the thousands of people at home in these coal rich fields, little of the benefits from their toil filtered down to their living needs. Medical care was honorable but overwhelmed the physicians attempting to cover the needs of the people despite their geographic isolation and economic inadequacy. Such a void begged to be filled.

The union of practical nurses and the mid-wife could fulfill the general medical and acute care requirements. In addition, the nursing service facilitated the removal of the critically ill and those in need of more sophisticated care. Such a nursing service was destined to

flourish but obviously the inspirational figure of Mary Breckinridge at the helm catalyzed a rapid growth to its present multimembered service.

At her demise in 1965, the leadership as well as the direction of the Frontier Nursing Service shifted. The juxtaposition of aggressive members and government nurturing of paraprofessional health care delivery culminated in the present form of this service as a virtual Health Maintenance Organization. (H.M.O.)

As physicians, we who read this book will be educated about the opportunities and challenges of rural health care. To confront the growing wave of non-physician health professionals and their replacing of medical persons in the health arena, we must understand the origins of such a movement. The autobiographical instrument of advertisement under the rubric of "Wide Neighborhoods" is useful to read for such an education.

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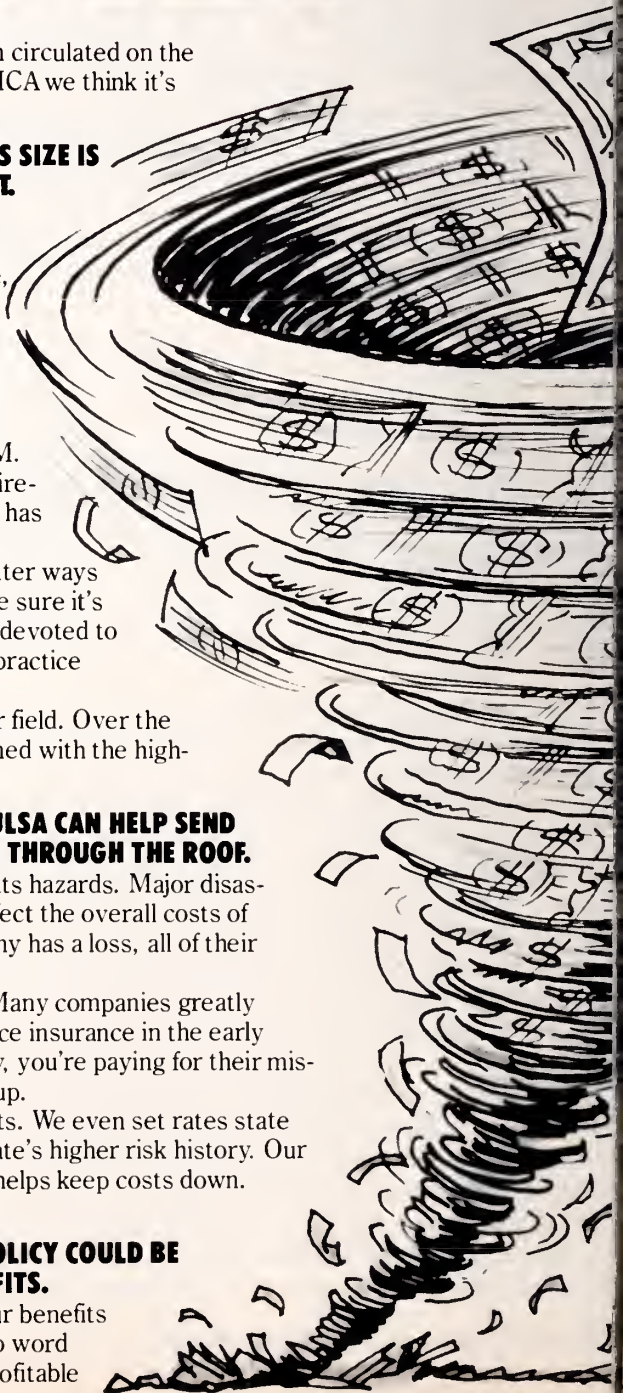
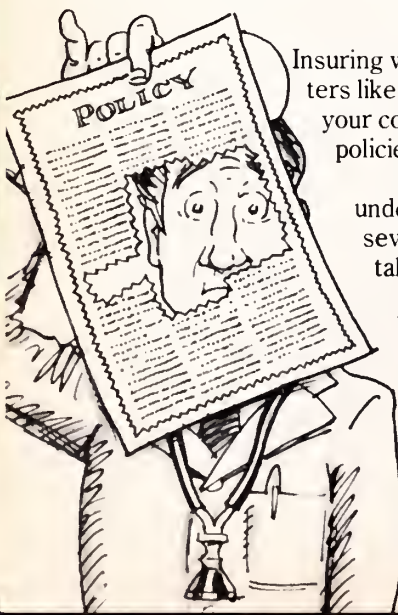
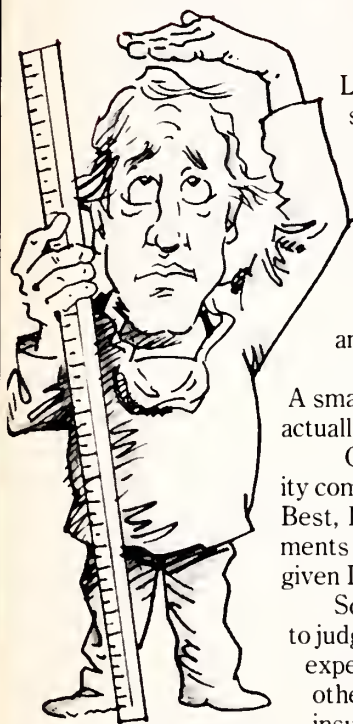
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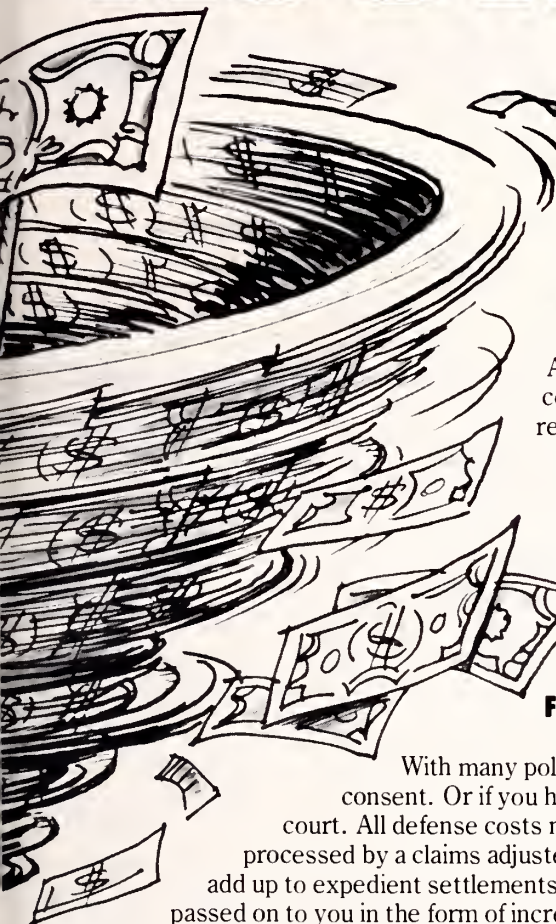
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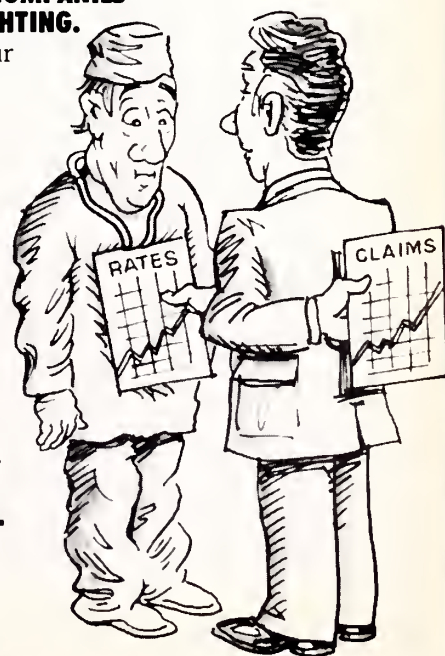
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Based on experience, Ballard W. Cassady, M.D., begins his term of office well-equipped to make decisions. In 1966, he was elected Trustee of the 14th District by the House of Delegates to fill the unexpired term of the late James W. Archer, M.D. He served as Trustee until 1971 when he became Vice-Chairman of the Board of Trustees and then Chairman in 1973. Doctor Cassady has been a member of the KMA Budget Committee for more than 10 years.

Doctor Cassady believes the biggest challenge during the coming Association year will be from the economic transitional period through which the government is passing. "Cuts in federal health care will have positive and negative effects. They will be positive because they will eliminate a lot of waste and abuse. They will be negative because some good programs will be hurt. Overall, I think it will have a positive effect," says Doctor Cassady.

Ballard W. Cassady, M.D.

"The governments' role is to provide adequately for the elderly or disadvantaged. I don't think that the elderly or people on Medicare or Medicaid should ever be considered second class citizens. Their health care should be provided in a first class way. If the abuses were stopped and some programs eliminated which do not belong under Medicaid, such as nursing home transportation, extra drug charges and home nursing care, then the money situation would improve."

One thing Doctor Cassady intends to encourage while he is in office is membership in the Kentucky Medical Educational Political Action Committee (KEMPAC). "This is one aspect that needs strong attention. The next few years are going to be much more important to the medical profession legislatively than they have been in the past. There is always some current program or proposal to restrict the practice of medicine or to relax quality control," explains Doctor Cassady. "Our best exercise of vigilance is through KEMPAC."

The best way to encourage physicians to join KEMPAC, according to Doctor Cassady, is personal contact. Members of KEMPAC should ask other physicians for their support and participation. Apparently Doctor Cassady has good reason to believe this works. In Pikeville, where Doctor





Cassady has practiced surgery since 1954, KEMPAC membership is 100%.

Asking KMA members to recruit other physicians is also the best means to increase KMA membership, particularly new physicians in a community, says Doctor Cassady. "Local physicians can help if they encourage participation in KMA. We want participation as much as we want membership."

Along with the many positions Doctor Cassady holds within KMA, he is also President and Chairman of the Board of the Kentucky Medical Insurance Company (KMIC).

The benefits for support of a physician-owned insurance company are substantial, says Doctor Cassady. "The KMIC has stabilized the liability insurance industry in Kentucky. It has helped physicians by keeping liability insurance rates lower than states that do not have their own company. KMIC instituted very competitive rates and even made one decrease in rates during the first two-years of operation. For other insurance companies to be competitive, they have had to keep their rates in line. We also feel that KMA will benefit from interaction with KMIC through the availability of mechanisms such as the new computer program being shared by KMA and KMIC."

One of KMA's main responsibilities to its members is providing educational opportunities such as the Emergency Medical Care Seminar, Sports Medicine Seminar and the Annual Meeting. Doctor Cassady elaborates, "Each year the Annual Meeting Scientific Session concentrates on im-

portant medical subjects. We have very good participation from our membership. This is very encouraging since it is difficult for a lot of physicians to leave their practice for more than one day at a time. Many of them practice in small communities and don't have coverage. Obviously, the Annual Meeting is considered to be excellent by the number of exhibitors who attend. In fact, we have a waiting list. These people won't waste their time unless they feel it is a success."

Doctor Cassady and his wife, Ann, travel together to many of the meetings he must attend. Mrs. Cassady was a nurse for two years after they were married. She is now active in the Auxiliary, is a member of the KEMPAC Board and the Kentucky Educational Television Board and is active in community projects.

The Cassady's have four children and nine grandchildren. Their daughter Josephine lives in Moorehead, KY with her husband, Doctor Kenneth Smith, an oral surgeon, and their three children. Cynthia, his other daughter, lives in Denton, Texas. Her husband Barney Veneables, Ph.D., is a biologist, doing research on environmental impact for industries. The Veneables have four children.

Ballard Cassady, Jr., lives in Pikeville and is vice president of Pikeville National Bank. Doctor Cassady's youngest son, Ben, also lives in Pikeville with his wife and two children, and is involved in the mining business.

In his spare time, Doctor Cassady enjoys golf, bass fishing and horseback riding. He has been a surgeon in Pikeville since 1954. Doctor Cassady graduated from the University of Louisville School of Medicine in 1946 and attended his 35 year reunion during this year's Annual Meeting.

Doctor Cassady hopes that during this year as President of KMA he will see substantial increases in KMA and KEMPAC. "I think that the KMA is the most capable organization to represent all facets of the medical profession. Everyone who is active in KMA knows that there are factions who strike out on their own and usually they strike out."

**Text and photographs by
Donna M. Young**

ASSOCIATIONAL NEWS

Digest of Proceedings Board of Trustees Meeting

The sixth meeting of the Board of Trustees was held in Louisville on August 5-6, 1981. A primary purpose of the August meeting annually is to review the reports of the committees to be presented to the House of Delegates.

President Pitzer presented a detailed report on his recent activities with special emphasis placed on the state health plan and recent meetings relating to district health departments. Secretary of the Department for Human Resources, W. Grady Stumbo, M.D., covered numerous subjects in a lengthy report, but also highlighted plans for district health departments.

A summary of the June AMA meeting was distributed with comments made by the Delegates to the AMA. The Board then unanimously endorsed the proposed candidacy of Delegate Fred C. Rainey, M.D. for the AMA Board of Trustees.

Informational reports were presented on the Kentucky Medical Insurance Company, KMA Insurance Agency, Board of Medical Licensure and Kentucky Peer Review Organization. Bound copies of KMA Journals were presented to immediate past president, Robert S. Howell, M.D. and *Journal* Editor, A. Evan Overstreet, M.D. The Headquarters Office Report was presented by Secretary-Treasurer Scheen.

The Board took action on a number of recommendations from the Executive Committee which had met earlier in the day. These included formalizing a nomination for the Judicial Council and for Journal Editors; authorizing a change in KMA members' Blue Cross and Blue Shield coverage; and discussing Ad Hoc Committee reports on the Headquarters Building, Medicaid and District Boards of Health.

Pursuing plans for an addition of approximately 10,000 square feet to the Headquarters Building was authorized with details to be brought to the Board for approval. The addition is needed for KMIC and the KMA Insurance Agency which will also finance the cost of such an addition.

The Board decided to reinstate a Parliamentarian for KMA business proceedings, and Thomas L. Heavern, Jr., M.D. was elected to that position. Board Chairman Blackburn announced the members of the committee to nominate the Executive Committee for the 1981-82 Associational year, and matters relating to the 1981 Annual Meeting were presented.

The Board's final activity of the two-day meeting was a review of all reports being presented to the House of Delegates, and appropriate action was taken on each.

The next meeting was set for Sunday, September 20, at the Ramada Inn in Louisville.

Did you know . . .

Kentucky Medical Insurance Corporation's (KMIC) growth and progress continues to reflect increased interest from Kentucky physicians.

The KMA Insurance Agency, Inc., staffed by KMIC personnel, is experiencing increased interest in the homeowners, automobile and office liability, as well as Group Term Life Insurance, offered through Physicians Insurance Company of Ohio. This, along with the increasing response to KMIC's own professional liability policy (KMIC now insures more than 1100 Kentucky physicians), has necessitated a recent increase in staff of the Company's Marketing Department.

Bob Proffitt, Manager of Provider Relations at Blue Cross/Blue Shield for 11 years and recently Vice President of Member Relations of the Kentucky Chamber of Commerce, assists Morton Bell, Manager, Marketing Services, in arranging KMIC's professional liability policy for Kentucky physicians.

Tim Doyle, with three years experience in general lines and life insurance, devotes the majority of his time with the KMA Insurance Agency.

With additional personnel, the Company's staff, numbering 11, requires the entire second floor of the KMA Headquarters' Building for its operations.

Bernard Weisskopf, M.D., Louisville, a Fellow of the American Academy of Pediatrics, has been appointed to the Academy's Committee on Children with Handicaps.

Academy committees study issues of concern on child health, safety and well-being, and advise pediatricians, parents and the public of new medical information important to children. Appointment to a national Academy committee is a sought-after honor among Fellows of the Academy.

The American Academy of Pediatrics is an organization of more than 23,000 board-certified pediatricians.

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Members in the News

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Dan Miller, M.D.

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Abel J. Coronel, M.D.
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The Rural Kentucky Medical Scholarship Fund is pleased with the success of this year's program. Recently, the Ashland Oil Foundation, Inc. provided a \$4,000 contribution with the Kentucky Medical Insurance Company providing \$1,000.

IN MEMORIAM

HUGH C. WILLIAMS, M.D.

1924-1981

Louisville

Hugh C. Williams, M.D., died June 13, at his home. Doctor Williams was Associate Professor of Surgery and Associate Dean for Academic Administration at the University of Louisville School of Medicine. He had practiced as a surgeon in Carrollton for 18 years. Doctor Williams was a graduate of the University of Pennsylvania School of Medicine and completed his surgical training at the University of Louisville. He had been a member of KMA since 1950.

WILLIAM K. MASSIE, M.D.

1913-1981

Lexington

William K. Massie, M.D., died June 10, at his home. Doctor Massie was an Assistant Professor of Orthopedic Surgery at the University of Kentucky. He was a graduate of the University of Kentucky and Harvard University and had practiced orthopedic surgery in Lexington since 1950. He had been a member of KMA since 1952.

JOHN E. DUNN, M.D.

1903-1981

Paducah

John E. Dunn, M.D., died August 13, at Western Baptist Hospital. He was staff physician at the hospital. Doctor Dunn practiced medicine for 53 years in Smithland and Paducah, and was a 1928 graduate of the University of Cincinnati College of Medicine.

He had been a member of KMA since 1931 and was a former Vice President.

HONORS BESTOWED

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

Edward T. Arnn, M.D., Louisville
James G. Bland, M.D., Louisville
James R. Burt, M.D., Bowling Green
Marshall A. Dawson, M.D., Lexington
Ralph M. Denham, M.D., Louisville
Karl C. Kelty, M.D., Lexington
Wolfgang F. Kuhn, M.D., Louisville
Amanda D. Lange, M.D., Frankfort
W. H. Matthew, M.D., Grayson
Karl M. Neudorfer, M.D., Ashland

Neil H. Parnes, M.D., Lexington
Raymond E. Pary, M.D., Louisville
C. Edward Rankin, M.D., Lexington
Jason Samuel, M.D., Henderson
John J. Schwab, M.D., Louisville
Melvin Shein, M.D., Louisville
Galina M. Sokol, M.D., Hopkinsville
Joseph L. Thompson, M.D., Louisville
George R. Walters, M.D., Madisonville

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Headquarters Activity

OCTOBER

- 13 10th District Trustee Meeting, Lexington
- 13 Journal Editors, Louisville
- 14 Judicial Council, Louisville
- 17 Physicians Recruitment Fair, Louisville

NOVEMBER

- 10 Journal Editors, Louisville
- 19 Board of Medical Licensure, Louisville

Hodgkin's Disease
Histoplasmosis
Empyema

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November 1981
Volume 79
Number 11


The Journal Of The Kentucky Medical Association

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**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





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At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect.

Adults: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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Postgraduate Opportunities

NOVEMBER

- 12 Diabetes Update, Hyatt Regency, Louisville

DECEMBER

- 4-5 Choosing and Using a Computer System in a Private Medical Practice, Atlanta
8-10 American Cancer Society, National Conference-Gastrointestinal Cancer-1981, Fountainebleau Hilton Hotel, Miami Beach, FL
10 24th Annual Postgraduate Medical Seminar, NKC, Inc. Auditorium, Louisville*
10-11 Current Topics in Geriatric Medicine, Duke University, Durham, NC
10-12 Current Concepts in Cancer Therapy, St. Louis, MO

FEBRUARY

- 21-26 Thirteenth Family Medicine Review, Hyatt Regency Hotel, Lexington, KY

MARCH

- 8-10 Sixth National Seminar, Nutrition in Pregnancy, University of Louisville, Health Sciences Center, Louisville, KY
24-27 International Conference on Occupational Lung Disease, Hyatt Regency, Chicago, IL

APRIL

- 8 Hypertension 1982, Hyatt Regency, Louisville, KY
22-24 Eighth Annual High Risk Pregnancy Symposium, Galt House, Louisville, KY

MAY

- 14-15 Vitrectomy Workshop, University of Louisville, Health Sciences Center, Louisville, KY
20 Allergy-Immunology Update, Hyatt Regency, Louisville, KY
20-22 Adolescent Gynecology, Hyatt Regency, Louisville, KY

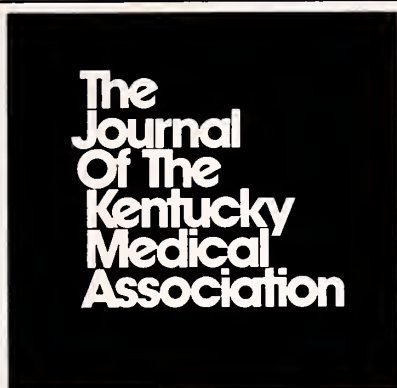
JUNE

- 13-18 Seventh Annual Family Medicine Review, Galt House, Louisville, KY

*See Ross Morrison, M.D., NKC, Inc., Louisville, KY 40202



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DESCRIPTION

Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED

Bottles of 100 Tablets
Bottles of 500 Tablets

Federal law prohibits dispensing without prescription

NDC 0524-0058-01
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COUGH

RU-TUSS[®] EXPECTORANT

DESCRIPTION

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30
Phenylpropanolamine Hydrochloride	20
Pheniramine Maleate	20
Pyriminamine Maleate	20
Ammonium Chloride	200
Alcohol	

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, slug tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

HOW SUPPLIED

Pint bottles (16 fl. oz.)

Federal law prohibits dispensing without prescription

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Pioneers in Medicine For the Family



PRESIDENT'S PAGE

"They Were Good Men and Women Who Did Nothing and Evil Prospered"

Following an arduous 21-22 years of education, many long hours of sweat and toil, physicians take their places in society and begin the practice of medicine. They have deprived themselves of many of life's joys and endured much to become a physician. Yet, despite its enormous demand, despite its toll in terms of time and finances, the sound of "Doctor" or the name with M.D. following it makes it all worthwhile.

But let's not forget society in our self-adulation and martyrdom in extolling our personal sacrifices. Most of us would not be where we are today had it not been for those leaders and taxpayers who saw the need and paid the price for the best health care system ever to exist. Numerous new medical schools opened their doors, and for the first time in history, gave every young man and woman, without regard to race, sex or social status, who met the qualifications, the opportunity to become a physician.

However, like storm clouds, trouble is on the horizon. Ten percent of the GNP is now spent on health care. Federal and state government, reeling from budget deficits, unemployment and inflation, grasp for straws. Taxpayers clamoring for relief demand immediate action and solutions. The aged, indigent, unemployed and the veteran become the first targets for the taxcutters. Industry, inundated with the cost of extravagant health insurance plans, coalesce with labor and government to seek alternatives.

Amidst the battle, with feet firmly planted in mid-air, stands the politician. In a time when reason should prevail, when thinkers should strive with all their might to arrive at solutions which can endure the sands of time, the politician is forced to make a quick decision in the best interest of his or her constituency.

Where is organized medicine in this fray? Where are you in this fray? What if the 592 physicians out of 5,300 stopped paying their KEMPAC dues and KEMPAC dissolved?

The Federation of Medicine, AMPAC and KEMPAC have together made enormous strides in protecting the profession of medicine. Sure, they've made some mistakes, and occasionally supported or opposed legislation or politicians whose views conflicted with ours. But over the broad spectrum your freedom to practice medicine and to render patient care has been promoted and protected zealously by your Federation and the political arms of medicine.

On November 3, 1981, 100 Representatives and 38 State Senators were elected by Kentuckians and will make the ultimate decisions on where, when and how health care will be financed, distributed and delivered. The Medical Practice Act along with other health care practice acts are within the purview of the Kentucky General Assembly. Federal Government has signaled its intent to wash its hands and turn the responsibility of health care financing delivery to the individual states. The vote of your Representative or Senator may very well decide the fate of health care and the quality in which it is to be delivered.

The struggle to maintain the free and independent practice of medicine has been one of constancy. Since the early days when physicians fought quackery and sought to enact laws protecting the public from charlatans and chicanery the battle has waged on. The questions we pose echo back. Has the personal sacrifice to achieve the dream of being a physician been worthwhile; have the sacrifices made by those who preceded us been of significant value to protect and maintain?

Our task, while difficult, is not insurmountable. Quite obviously the few can no longer protect the unconcerned and disaffiliated; nor can they alone assist in electing qualified individuals to public offices. Membership and participation in KMA and KEMPAC, for physicians, should be a moral obligation in order to maintain our profession. We need your help and we need it now. May it never be said of us, "They were good men and women, who did nothing, and evil prospered."

Ballard W. Cassady, M.D.
KMA President

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1. Samples, complimentary, and other free copies:	146	139
E. Total distribution:	4,016	3,956
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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addition-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

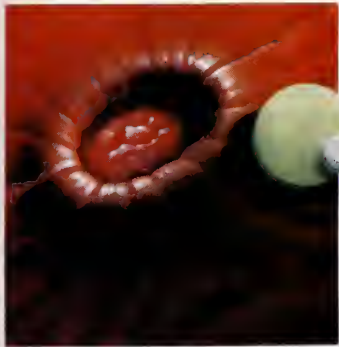
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for (lorazepam)
Anxiety

Dosage: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

How Supplied: 0.5, 1.0 and 2.0mg tablets.



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2





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* Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic.

† All benzodiazepines, however, produce additive effects when given with CNS depressants, such as barbiturates or alcohol.

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Epitrochlear Presentation of Hodgkin's Disease

Report of a case and review of the literature

BEN M. BIRKHEAD, M.D., C. E. DOBBS, M.D., M. GRIMALDI, M.D. AND J. W. SHAW, M.D.*

A case of Hodgkin's Disease, presenting in an epitrochlear node, is described. This case, and three other similar cases found in a literature search, will be discussed with regard to the natural history of this unusual presentation.

INVOLVEMENT of epitrochlear nodes, at any stage in the course of Hodgkin's Disease, appears to be uncommon. Hutchinson,⁴ in a review of anatomic patterns of spread in 160 patients, described no such instances. Kaplan⁶ tabulated all the various sites of nodal involvement in 340 consecutive patients and found only three with epitrochlear nodes.

Presentation of Hodgkin's Disease in epitrochlear nodes appears to be very uncommon. In reviewing the initial site of lymphadenopathy in 326 consecutive patients with Hodgkin's Disease, Smithers¹² described no cases of epitrochlear presentation. Pack and Molander,⁹ in a similar study of 272 patients, mention one patient with

initial lymphadenopathy in the epitrochlear area, but no comment was made regarding his clinical course.

We wish to describe such a case and briefly discuss this unusual presentation of Hodgkin's Disease.

Case Report

A 32-year-old man noted a swollen left epitrochlear node in March 1978. Biopsy revealed Hodgkin's Disease, mixed cellularity type. He had no systemic symptoms, no other palpable nodes, and was in excellent general condition.

While awaiting a second opinion on the sub-classification of the histology, a non-invasive staging evaluation was done. CBC, sedimentation rate and SMA-18 were within normal limits. Skin tests for tularemia antigen, mumps and trichophytin were negative. PPD was positive. Radiographic evaluation included chest x-ray, lymphangiogram with concomitant intravenous

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pyelogram, liver and spleen scan, Gallium⁶⁷ scan, and CT scan of the abdomen. All of these studies were considered normal. Invasive staging evaluation included staging laparotomy with splenectomy, posterior iliac crest bone marrow biopsy, and biopsy of a right inguinal node which began to enlarge a few days after lymphangiography. No evidence of Hodgkin's Disease was found in liver, abdominal nodes, spleen or bone marrow. The inguinal node revealed only the expected lipid reaction.

The patient was staged as I_A, (PS) Hodgkin's Disease.

He received radiotherapy through anterior and posterior parallel opposed extended fields which encompassed the left epitrochlear area, the medial half of the left arm, the left axilla, the left supraclavicular space and left scalene node. A minimal tumor dose of 4000 rads was given in 20 fractions over 34 elapsed days with 4 MvP x-rays.

Aside from the expected, transient reaction in the axillary skin folds, he had no adverse side effects and he continues to be free of any evidence of Hodgkin's Disease, at 43 months post-radiotherapy.

Discussion

In 1977, Weiss & Jenkins¹³ reported a case of right epitrochlear presentation in a 31-year-old man. After a delay of one year, the nodes were excised, revealing mixed cellularity histology. Clinically, he was staged as I_A, after a most thorough non-invasive evaluation. Upon laparotomy, however, he had splenic involvement and was upstaged to III_A, (PS). He received total nodal irradiation and four drug adjuvant chemotherapy as part of a protocol study. At the time of their report he was free of recurrence at 30 months post-radiotherapy.

Firth,² in a letter published in *The Lancet* in mid-1978, described the case of a 42-year-old man who developed a left epitrochlear swelling which was excised after a few months. It was nodular sclerosing histology. He was evaluated with a complete non-invasive work-up and staged as a I_A (CS). Radiotherapy was given to the elbow, upper arm, and axilla. He received 3750-4000 rads in 20 fractions over 28 elapsed days. He was

free of recurrence for two years at the time of reporting.

Sacks and Saab,¹⁰ in a letter published in *The Lancet* six weeks later, briefly discussed a 53-year-old woman who observed a left epitrochlear mass for two years before diagnosis. It was mixed cellularity histology. She was apparently a Stage II_A (CS) but subsequent laparotomy revealed liver and spleen involvement. The letter did not comment on treatment or her present status.

Conclusion

No comment on treatment would be appropriate regarding only four cases observed for too short a time. However, two observations on the natural history of this unusual presentation seem in order.

Mixed cellularity histology predominates.

Even this seemingly isolated, peripheral presentation is not above suspicion if the histology is unfavorable since two of the three pathologically staged patients underwent a major upstaging as the result of laparotomy findings.

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Histoplasmosis In Kentucky Can It Be Prevented?

H. MAC VANDIVIERE, M.D., NORMAN L. GOODMAN, Ph.D., IRENE G. MELVIN, M.S., RAJ NARAIN, M.D. AND H. DAVID WILSON, M.D.

A survey among high school students in nine counties surrounding a bird-roost in Kentucky showed high prevalence of skin reactions to histoplasmin, but there was no correlation with distance from the bird-roost. The findings suggested that there were more foci of infection than only the bird-roost. In a second survey, which also included younger students, all participants were examined simultaneously by a histoplasmin skin test, complement fixation test and an x-ray of the chest. There was considerable discordance between the findings of the three techniques, suggesting that factors other than infection with *H. Capsulatum* also led to positive findings by the three techniques. There was high prevalence of infection even in students eight to nine years old. Initiation of steps towards prevention of infection appears necessary and needs further studies and concerted action.

Introduction

SEVERAL workers have reported the association of bird-roosting sites with high rates of histoplasmin sensitivity.^{1,2} Kentucky is regarded as the heart of endemic area for histoplasmosis; in all, 69.3% of U.S. Navy recruits from Kentucky showed a 4 mm or larger reaction to the histoplasmin skin test,³ while from two of its regions, 94.5% and 92.5% were positive.³ Recently, some doubts have been cast on the value of skin sensitivity in the diagnosis of histoplasma infection and disease.⁴ The complement fixation (CF) test is regarded as more accurate.^{4,5} In few surveys have the three techniques, skin testing, complement fixation and x-ray examination of the chest been combined. A histoplasmosis survey among high school students in counties surrounding a bird-roost in Kentucky was carried out; the techniques included skin testing, CF test for those with positive skin reactions and x-ray examination of those positive on both skin and CF tests. The results led to a further survey with inclusion of younger students and application of the three techniques to all the students. The results

of the two surveys point to the desirability of long term preventive measures.

Methods and Materials

The bird-roost, an undisturbed wooded area of about three acres, was situated within the town limits of Cynthiana in central Kentucky, some 30 miles north-north-east of Lexington. The roost had been inactive since 1969 but *H. capsulatum* has been isolated in random biannual soil sampling for 10 years, last sampling being in the fall of 1976. Prior to 1969, the roost had been active for several years. The birds were predominantly starlings.

Figure 1 shows the position of the roost and surrounding nine counties. During December 1976, ninth and 10th grade students in the nine county schools, with consent of their parents, were given a histoplasmin test, using lot HK-C-43 furnished by Doctor Coy Smith. Longest diameter of palpable induration was measured after 48 hours. At the time of reading the reactions a blood sample was drawn from students who had a 6 mm or larger induration to the skin test. Later, students in whom the complement fixation test for *H. capsulatum* yeast antigen was positive with at least 1:8 titer were offered a chest x-ray ex-

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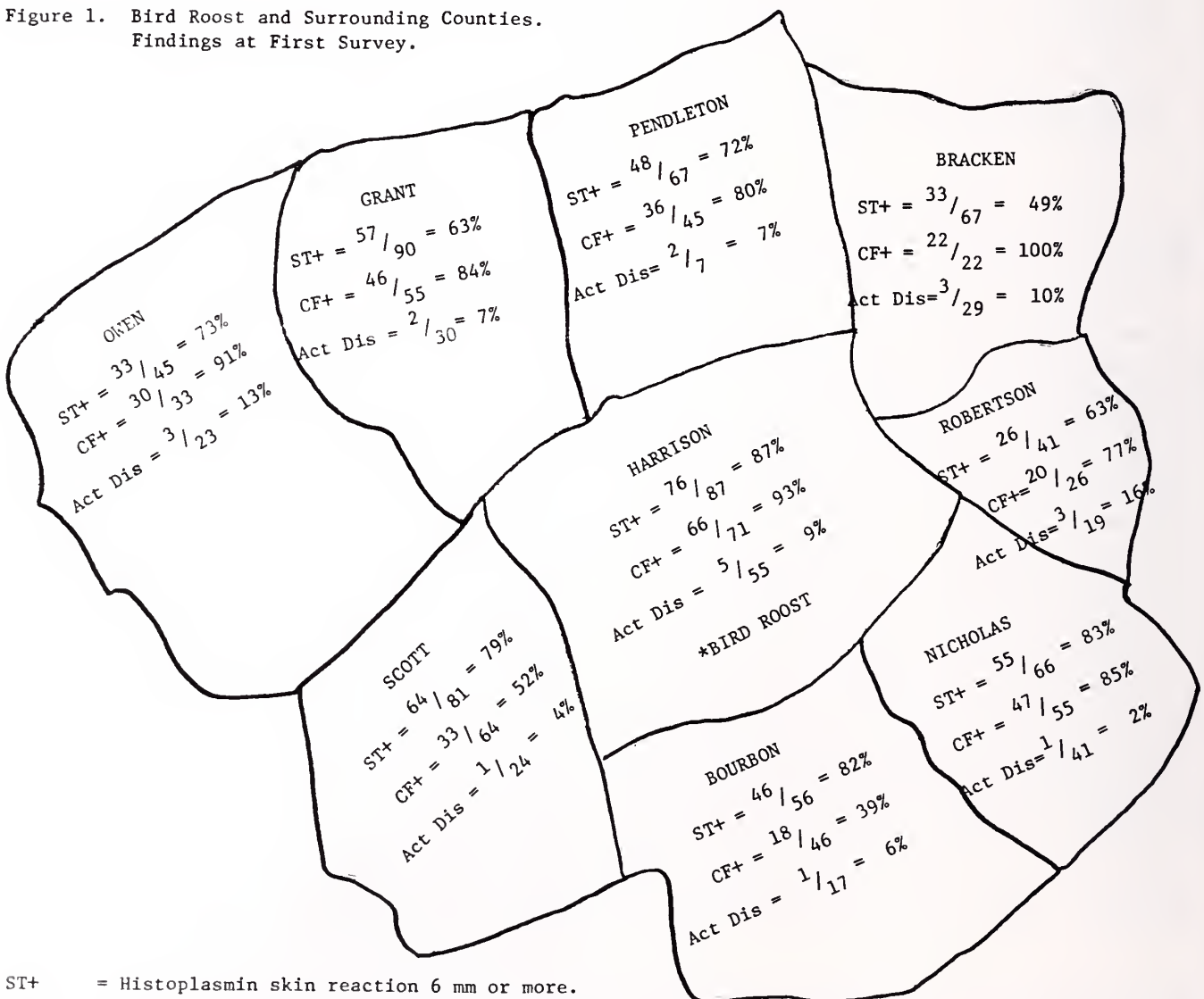
Histoplasmosis—Vandiviere et al

amination (PA view). Subjects producing sputum more than one tablespoon per day were requested to send six sputum specimens on six different days to the University of Kentucky Mycology Laboratory for culture for *H. capsulatum*. During the last week of the study, it appeared desirable to also chest x-ray students who were skin test negative. Eighteen students, so examined, are also included in table 4.

For each student a history of histoplasmosis in the family, or of past pulmonary disease(s) or allergies and of visits to the roost was recorded.

In the second study school children of Grades three, five, seven, nine and 10 in Georgetown, Scott County, were offered, simultaneously, a histoplasmin skin test, venipuncture for 10 ml of blood and x-ray examination of the chest. The serum was examined by CF test for antibodies to the yeast and mycelial phases of *H. capsulatum* and *Blastomyces dermatitidis*. The immunodiffusion test (Meridian Diagnostics, Inc.) was carried out against antigens from *H. capsulatum* and *B. dermatitidis*. The roost was not associated with greater frequency of positive skin reactions or of

Figure 1. Bird Roost and Surrounding Counties. Findings at First Survey.



ST+ = Histoplasmin skin reaction 6 mm or more.
 CF+ = Complement fixation test titer 1:8 or higher.
 Act Dis = Active disease on radiology.

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higher positivity rate or titer of the CF test. Results of the second study are shown in tables five to eight.

Only a small proportion, about 15-20%, of the parents gave permission for their children to be examined. The effect of the large percentage of non-participation is difficult to speculate upon.

Analyses and Discussion

In table 2, ranking positions of the nine counties by the three tests appear to be independent of each other. Spearman rank-correlation test both by the old method⁶ and by the method described by Kendall⁷ did not show any statistically significant correlation between ranks by skin test and CF test results, by skin test and x-ray results and by CF tests and x-ray results. Spearman rank-correlation coefficient⁶ gave a -0.61 value for correlation of ranks between serology results and x-ray results. Other values were near zero. The purpose of the first study was to find if any association existed between histoplasma infection and the location of the old inactive bird roost. A high prevalence rate of 73% skin reactions and CF positivity of 76% among reactors to the skin test was found (table 2). Both parameters showed the highest frequency in Harrison County (figure 1), the county in which the bird roost is situated but beyond that no other pattern of association seemed apparent.

How the infection is acquired from bird-roosts is not known with certainty. Inhalation of spores is believed to be the commonest route of infection. Therefore, prevailing winds, storms and human disturbances of the roost could serve as vectors for the spread of the spores and thus of infection and disease. According to the National Weather Service, the prevailing winds in the area of Cynthiaana blow from the south-south-west 10 months of the year. For approximately two months of the year, during winter, the wind is from the north-west. These patterns are subject to changes due to storms, frontal systems, etc. However, no pattern of spread of infection by the winds was discernable from figure 1.

Since the prevalence rates for the three parameters showed independent trends and not much association, an attempt was made to see if there

TABLE 1
DISTRIBUTION OF STUDENTS BY SIZE OF REACTION
TO HISTOPLASMIN

Size of Reaction (mm)	Number of Students	Percentage
0	131	21.8
1	—	—
2	—	—
3	4	0.7
4	18	3.0
5	9	1.5
6	34	5.7
7	37	6.2
8	37	6.2
9	45	7.5
10	100	16.7
11	13	2.2
12	33	5.5
13	10	1.7
14	9	1.5
15	50	8.3
16	8	1.3
17	2	0.3
18	7	1.2
19+	53	8.8
TOTAL	600	100.0

was any quantitative association between the parameters. For example, were large skin reactions associated with high CF titers or were large reactions or high titers associated with histoplasmosis (disease) on x-ray examination? In table 3 there does not appear to be much correlation between the size of skin reaction and the titer of the CF test. Index of association⁶ and index of order association⁶ gave near 0 values. The Chi square value was also non-significant. Similarly, the data in table 4 do not show any such association; percentage showing active disease on x-ray did not increase with the increase in size of skin reaction or the titer of CF tests. Thus, it appears as if the three parameters were not indicating the same phenomenon, namely, infection with *H. capsulatum*.

Nearness or contact with the roost did not seem to have any influence on the prevalence of histoplasmin skin reactions or the frequency of positive CF titers, although positive *H. capsulatum* cultures were consistently obtained from the soil. A study reported that histoplasmin testing of children near a roost, from which soil samples were negative, showed less skin sensitivity than in children 10 miles away from the roost.⁸ To explain the high prevalence rates for positive skin reac-

TABLE 2
RESULTS OF SKIN TEST, BLOOD AND X-RAY EXAMINATION FOR THE NINE COUNTY SCHOOLS

Name of County	Histoplasmin Test			Complement Fixation Test			X-ray Exam Result		
	Number Tested	Percent Positive	Rank**	Number of Specimens	Percent Positive*	Rank**	Number X-rayed	Percent with Active Disease	Rank**
Harrison	87	87	(1)	71	93	(2)	55	9	(4)
Nicholas	66	83	(2)	55	85	(4)	42	2	(9)
Bourbon	56	82	(3)	46	39	(9)	17	6	(7)
Scott	81	79	(4)	64	52	(8)	24	4	(8)
Owen	45	73	(5)	33	91	(3)	23	13	(2)
Pendleton	67	72	(6)	45	80	(6)	27	7	(6)
Grant	90	63	(7)	55	84	(5)	30	7	(5)
Robertson	41	63	(8)	26	77	(7)	19	16	(1)
Bracken	67	49	(9)	22	100	(1)	29	10	(3)
	600	73		417	76		265	8	

*A titer of $\geq 1:8$ regarded as positive.

**Ranking position of the county by the result of each test is shown in parenthesis (see text).

TABLE 3
DISTRIBUTION OF STUDENTS BY SIZE OF SKIN REACTION AND COMPLEMENT FIXATION TITER
Complement Fixation Titer (Yeast Antigen)

Size of skin reaction (mm)	Negative	1:8	1:16	1:32	Total	Percent Positive
6-10	47	91	54	33	225	79
11-15	33	48	21	14	116	72
16-20	14	24	9	7	54	74
>21	7	11	3	1	22	68
TOTAL	101	174	87	55	417	76
PERCENT OF TOTAL	24	42	21	13	100	

tions in almost all the counties, one must postulate additional and rather widespread sources of infection than only the bird roost. The fungus has been isolated from areas without any apparent association with birds.⁹

One may comment upon the causal relationship between birds, bird roosts and prevalence of histoplasma infection. [Birds are not naturally susceptible to histoplasmosis.² The body temperature of birds is approximately 40°C, and *Histoplasma capsulatum* will not grow at this temperature; this high temperature precludes the possibility of avian disease or an avian reservoir.¹⁰ The question of reservoirs has been studied by numerous investigators who have been unable to isolate the fungus from birds collected at bird roosts or chickens ranging on soil known to be infested with the fungus. Birds are associated with histoplasmosis by providing fertilizer to the soil. These cloacal drop-

pings enhance sporulation thus increasing the number of aerosolizable particles and increasing the potential for human infection.¹¹] The higher frequency of histoplasmin skin reactions in farm residents could also be due to the fertilizing effects of chicken droppings helping growth of histoplasma in the soil. Histoplasmosis in animals close to the earth is common, eg, in dogs, cats and rats. A study in Loudon County, Virginia showed that 44% of cats and dogs had benign histoplasmosis.¹² Mouse passage of the lymph nodes from unwanted dogs or cats has resulted in a more frequent isolation of histoplasma than direct sampling of soil and provides a more direct, sensitive and reliable index of the presence of histoplasma in an area than dependence on histoplasmin skin tests.¹⁰

The almost complete lack of association between positive skin reactions, complement fixation titers and x-ray abnormalities throws a considerable doubt on whether positivity of any of these tests was solely due to histoplasma infection. Cross reactivity in skin testing with histoplasmin has been reported.¹³ Lowell and Shuford⁴ reported that in Missouri and Texas, patients suffering from histoplasmosis were as often skin positive as U.S. Navy recruits from the area. Also, patients suffering from pulmonary tuberculosis or chronic obstructive disease were as likely to be skin test positive as histoplasmosis patients. Thus, they concluded that the histoplasmin skin test was of no value in the diagnosis of histoplasmosis. They also reported that the

TABLE 4
FREQUENCY OF X-RAY FINDINGS: a) BY SIZE OF SKIN REACTION AND b) BY TITER OF CF TEST
X-Ray Findings

Size of Skin Reaction (mm)	Negative	Hilar and/or Parenchymal Calcification	Enlarged Glands	Parenchymal Lesion	Total	Percent with Active Disease
a) by size of skin reaction						
0-5*	9	7	1	1	18	11.1
6-14	95	85	9	8	197	8.6
15-19	19	12	3	—	34	8.8
20+	18	14	1	—	33	3.0
Total	141	118	14	9	282	8.1
b) by titer of CF test						
Titer						
$\frac{1}{8}$	66	66	8	3	143	7.7
$\frac{1}{16}$	33	30	4	1	68	7.4
$\geq \frac{1}{32}$	30	19	2	3	54	9.3
Total	129	115	14	7	265	7.9

*No CF test was done for this group (see text).

value of the CF test was limited by false-positive and false-negative reactions.

The second study permitted analysis by some age-groups. In table 5 the proportion of students positive to the histoplasmin test increased with increase in age ($P < 0.05$). Though not shown separately, 38% of students eight to nine years of age and 65% of students 10-11 years of age were positive to the test. The rapid increase in infection rates with age illustrates the high risk of infection in the area. Most of the increase in infection rates with age would appear to have taken place by 12-13 years of age. The almost universal prevalence of infection after 13 years of age takes away a lot of the value from the test for the diagnosis of disease. The difference in prevalence of infection between the two sexes in table 5 was not significant statistically. However, if age-group eight to 11 years were excluded, the difference was significant ($P < 0.05$).

In table 6, only 4 or 8% of the 50 with a skin reaction of 0-7 gave a positive CF test. However, less than half the persons with a positive skin test gave a positive CF test. Of 44 students with a positive CF titer, 4 or 9% were skin test negative. Discordance between skin test and CF tests results

TABLE 5
NUMBER OF STUDENTS TESTED WITH HISTOPLASMIN AND PERCENTAGE POSITIVE, BY AGE AND SEX

Age Group (Years)	M	F	Both Sexes
8-11	28 (50%)	10 (50%)	38 (50%)
12-13	27 (81%)	33 (64%)	60 (72%)
14-17	19 (84%)	31 (65%)	50 (72%)
All Ages	74 (70%)	74 (62%)	148 (66%)

Percent of positives (≥ 8 mm induration) is shown in parenthesis. There were no reactions of size 1 to 7 mm.

has been reported.⁴ However, the increase in the proportion of CF positive persons with increase in size of reaction to the skin test was highly significant ($P < 0.001$), but that with age was not significant ($0.25 > P > 0.10$). It may be recalled that increase in skin test positives with increase in age was statistically significant.

The CF test with the antigen from the mycelial phase of *H. capsulatum* was positive in three of 148 specimens (not shown in the table) and therefore would not appear to be of value in the diagnosis of histoplasma infection or disease.

TABLE 6
RESULTS OF SERUM EXAMINATION: a) BY SIZE OF SKIN REACTION AND b) BY AGE.

Size of skin reaction (mm)	Complement fixation test titer for the yeast phase antigen			Total examined	Percent with CF test positive	Immuno-diffusion test: Number positive for M band
	Negative	$\frac{1}{8}$	$\frac{1}{16}$			
a) by size of skin reaction						
0-7	46	4	—	50	8	1
8-14	20	13	3	36	44	5
15-19	19	10	—	29	34	2
20+	19	11	3	33	42	5
b) by age						
Age group (years)						
8-9	16	3	1	20	20	2
10-11	10	6	1	17	41	3
12-13	38	21	1	60	37	2
14-17	40	8	3	51	22	6
Total	104	38	6	148	30	13

Immunodiffusion test was positive for M band in only 13 of 148 specimens (table 6). Only in one subject in the entire study was the CF test against the *B. dermatitidis* antigen positive in 1:8 titer.

The reading of single x-ray films is, to some degree, a subjective phenomenon. However, very much like the increase in percentage of positive CF titers with increase in skin reaction size in table 6, the increase in the proportion of persons with positive x-ray findings with increase in size of skin reactions in table 7 was highly significant ($P < 0.001$); in both tables increases with age were not significant. As may be guessed from the preceding relationship, in table 8 the percentage of persons with positive x-ray findings increased with increase of CF titer ($P < 0.001$). However, in table 8, 37% of those with a negative CF test also had positive x-ray findings.

With almost universal infection in the area of the study, but with so few cases of actual disease (during the three years, 1976-1978, there were a total of 65 cases of histoplasmosis in the Medical Center Hospital, Lexington), the resistance of the population to the infection would appear to be high. Since histoplasmosis might have existed in the area for a long time, this resistance was probably acquired by weeding out of the susceptibles. However, harm done by the infection and disease may be more than indicated by the number of cases admitted in the Medical Center or the ra-

diological findings during the surveys. It is possible that the infection poses a life-long threat of developing histoplasmosis for a small minority of the population as indicated by the development of disease among those in whom immune mechanisms had to be suppressed either for transplants or during chemotherapy for cancer.

At any rate, prevention of infection and disease would appear to be desirable. Two possible preventive measures could be: (1) elimination of the sources of infection and (2) vaccination against the infection and disease. For the former, all the sources of infection may not be known. Destruction of birds in the roost may not be effective, as the Cynthiana bird roost had been without birds for eight years before the first survey and 11 years before the second survey without apparent effect on skin reactivity rates of children born after the roost became inactive. Also in another study, removal of trees, brush and leaves had no effect in eliminating the fungus.¹⁴ The organism was found more than one foot below the surface. Likewise application of four different fungicides failed to eliminate the fungus from the soil.¹⁴ However, three applications of 3% formalin to a heavily infected site were effective; the fungus was not recovered from the surface during 10 months of follow-up. Longer term results are now known.¹⁵ There would appear to be further need to experiment with formalin flushing of soil and estimating

TABLE 7
CORRELATION OF X-RAY FINDINGS a) WITH SKIN TEST RESULTS AND b) WITH AGE

Size of Reaction (mm)	Number of Subjects	X-ray findings				Percent with positive findings
		Neg.	Hilar or parenchymal calcification	Enlarged glands	Parenchymal lesions	
a) with skin test results						
0-7	50	44	5	1	—	12
8-14	36	18	17	—	1	50
15-19	29	7	20	2	—	76
20+	33	9	21	1	2	72
Total	148	78	63	4	3	47
b) with age						
Age Group (years)						
8-9	20	14	5	1	—	30
10-11	17	9	4	2	2	47
12-13	60	27	32	—	1	55
14-17	51	28	22	1	—	45
Total	148	78	63	4	3	47

TABLE 8
CORRELATION OF X-RAY FINDINGS WITH: a) COMPLEMENT FIXATION TITER WITH THE YEAST PHASE ANTIGEN, AND b) IMMUNO-DIFFUSION TEST.

IMMUNE DIFFUSION TEST:					
X-Ray findings					
Titer	Neg.	Hilar or parenchymal calcification	Enlarged glands	Parenchymal lesions	Percent with positive findings
a) Complement fixation test with the yeast phase antigen					
Neg.	66	34	1	3	37
$\frac{1}{8}$	11	25	2	—	71
$\frac{1}{16}$	1	4	1	—	83
Total	78	63	4	3	47
b) Immuno-diffusion test					
M band present	5	8	—	—	62
M band absent	73	55	4	3	46

its effect not only on soil cultures for *H. capsulatum* but, more importantly, on histoplasmin reactivity rates of the children born after treatment of the soil.

Furthermore, the infection and disease are limited to certain areas of the United States³ in spite of free movements of birds, winds and humans between these and contiguous areas. Therefore, there must be some natural barriers which have prevented and prevent spread of the disease beyond these areas. A study of natural factors limiting spread of infection and disease could be of great interest epidemiologically and of possible help in the prevention and control of the infection

and disease. Similarly, no suitable vaccine of proved efficacy is available. However, were such a vaccine available, it will have to be given to almost everybody at a very young age and continued over an indefinite period of time. In the long run it may be more costly than eliminating sources of infection.

In short, much further work is required if the infection is to be prevented and controlled. It cannot be said at present, with any degree of certainty, that prevention and control of the infection and disease would be possible. However, it is high time that a beginning for a long term study were

made, possibly from more than one center. It will have to be a multidisciplinary approach.

Summary

A survey among high school students in nine counties surrounding a bird roost in Kentucky did not show any correlation between frequency of skin reactions to histoplasmin and nearness to the roost. Seventy-three percent of the students were skin test positive; seventy-six percent of blood samples from skin test positive students were positive for the CF test. Half the students examined had positive x-ray findings. But there was considerable discordance between the skin test results, complement fixation test results and x-ray findings in different counties.

Another survey including students of grades three, five, and seven showed that 50% of students eight-11 years old and 72% of students 12-13 years old were positive to the skin test. Eight percent of those with a negative skin test had a positive CF test while of the students with a positive skin test, 41% had a positive CF test. Twelve percent of students with a negative skin test and 65% of those with a positive skin test had abnormal x-ray findings.

It is somewhat discomfoting that in spite of the known high prevalence of this potentially dangerous infection in Kentucky, no preventive measures which could reduce human infection have been tried. Soaking infected soil with 3% formalin was followed by negative soil cultures over a period of 10 months, but longer term results or its effect on reduction of human infection is not known. Long term plans appear necessary.

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Empyema Simulating Metastatic Carcinoma

PORTER MAYO, M.D. AND SIBU P. SAHA, M.D.

The lung, a common site for metastases, hosts both malignant and non-malignant disease, often strikingly similar both clinically and by chest x-ray. The fear of metastatic cancer may impair our clinical judgment and so through presumption, we may err and so delay or impede the proper diagnosis.

THE lungs and pleura not only are common sites for metastatic cancer but indeed may represent the first manifestation of spread from the primary source.¹ Because of this fact, clinicians often do not entertain other possible causes in a patient with a past history of malignancy. We present a patient with pulmonary disease initially believed to represent metastasis from his primary prostatic carcinoma.

Case Report: This 75-year-old man had adenocarcinoma of the prostate gland first treated by transurethral resection in May, 1977. He subsequently had bilateral orchiectomy in early January, 1978. On January 29 and again, February 6, 1978, the patient was seen by his family physician complaining of severe shortness of breath at rest, right side pleuritic chest pain, cough productive of thick, yellow sputum, fever and weakness. Initially, he was treated for possible congestive failure; however, his increasing toxicity led to his transfer to Central Baptist Hospital, Lexington, Kentucky. Chest x-ray February 7, 1978, was interpreted by the radiologist as follows: "PA and lateral views of the chest, plus overpenetrated chest films, reveal opacification of the right lung. Some lung markings are noted in the apex and in the right base. There appears to be a mass type lesion measuring at least 12 x 12 cm. in size in the right mid-lung field and I suggest that this is a neoplasm. Infiltrative and atelectatic type of processes are present in the right lung and there is an estimated 300 cc. of fluid at the costophrenic angle. The left lung and heart are normal." (Fig. 1)

Thoracic surgery consultation was requested by the attending physician and we proceeded with

bronchoscopy and thoracentesis. Minimal bronchitis was present but no malignant cells. The thick, yellowish-tan pleural fluid showed no bacterial growth or abnormal cells. There was no evidence of local recurrence of the prostatic cancer and liver studies were normal. The attending internist concluded that the patient had terminal metastatic carcinoma; however, we believed that pneumonitis and empyema were more likely the cause of the patient's extensive and progressive pulmonary disease and that open thoracotomy and decortication should be carried out without delay.

On February 10, 1978, right thoracotomy was performed with evacuation of the purulent content, including 1,200 cc. of pus and associated gelatinous material followed by complete decortication of the parietal and visceral peel. There was no evidence of malignancy. We last examined the patient August 25, 1980, at which time his chest x-ray was normal and he was free from malignant disease.

Discussion: A chest x-ray showing possible metastatic carcinoma is a feared eventuality in any patient. Legge reported a series of 64 cases of carcinoma of the prostate in which pulmonary metastases were found in 15.¹ In two of the 15, chest roentgenograms showed vascular congestion, atelectasis and bronchopneumonia. Pleural effusion was present in one additional case due to tumor involvement of the subpleural lymphatic vessels. Our patient's history of prostatic cancer and chest x-rays consistent with metastatic spread necessitated a tissue diagnosis of his pulmonary disease. When preliminary findings strongly imply metastases one is easily blinded and apt to pre-



Fig. 1

sume and so to ignore criteria which otherwise would lead directly to a proper diagnosis and treatment.²

Even though metastatic carcinoma was the primary concern we were more impressed with the possibility of pneumonitis and empyema unrelated to prostatic carcinoma.^{3,4} Three factors contributed to this impression. First, the patient's history and roentgenograms of the lung were characteristic of pneumonitis with abscess complicated by effusion and empyema; conversely, metastatic carcinoma of the lungs most often presents roentgenographically as single or multiple discrete nodules, or may take a linear interstitial pattern. Secondly, the acid phosphatase determination was normal. Customarily a patient's serum phosphatase level is not elevated until the tumor has extended beyond the prostatic capsule; when ex-

tension occurs, a high proportion of patients with carcinoma of the prostate will show an elevated level of acid phosphatase.⁵ Thirdly, pulmonary metastases from prostatic carcinoma are relatively rare when compared to other primary sources and similarly so when compared to the frequent presence of osseous metastases which were absent in our patient.⁴

Summary: We have described a 75-year-old man thought to have metastatic carcinoma to the right lung and pleura but whose true picture was that of pneumonitis and empyema which proved responsive to treatment. When treating cancer patients: 1) keep an open mind, 2) do not presume, and 3) do not "write off" cancer patients.

Empyema—Mayo and Saha

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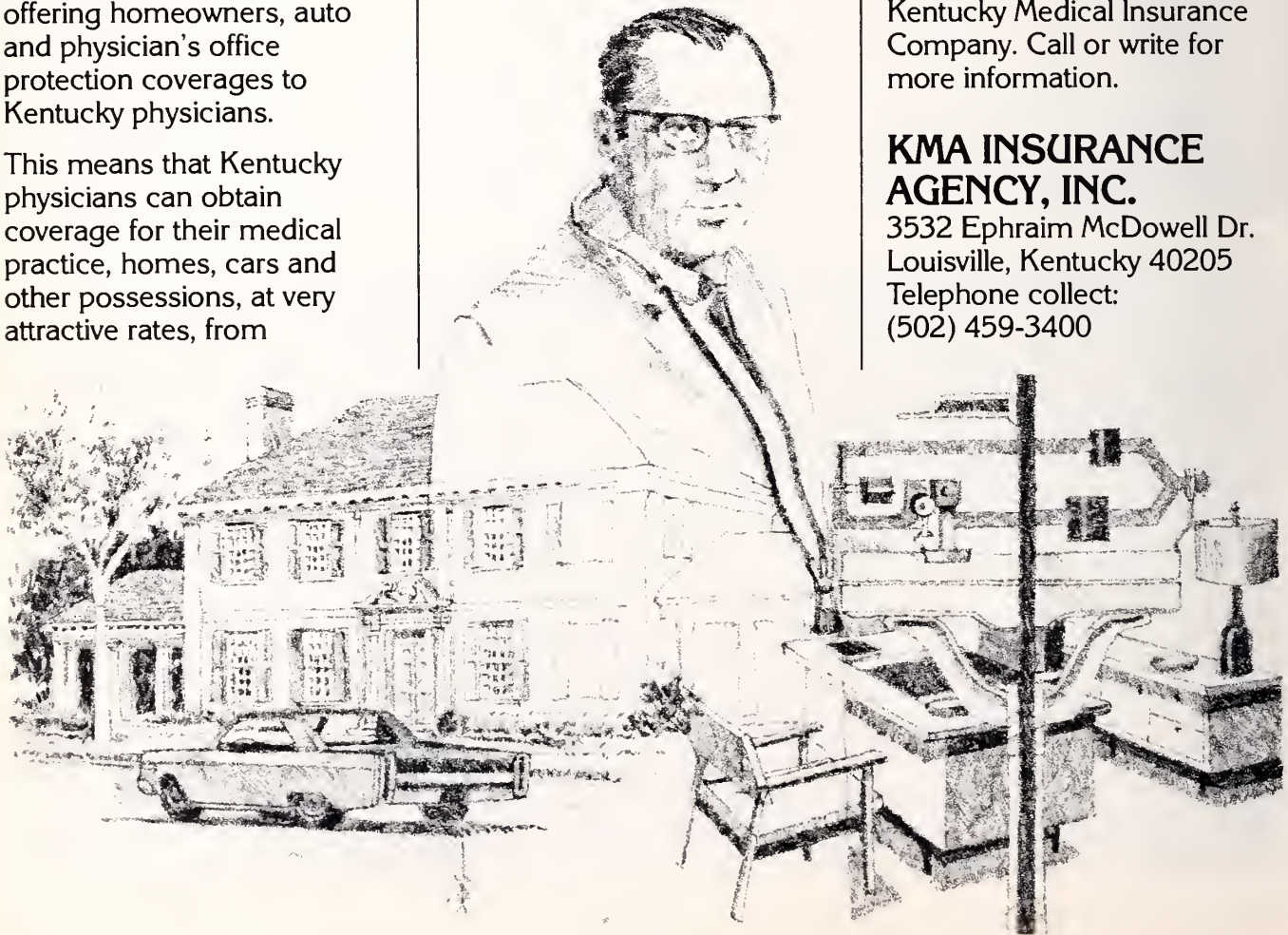
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Management of Ductal Obstruction at the Liver Hilum

J. David Richardson, M.D. and Donald E. Fry, M.D.

Introduction

Biliary tract disease is a major cause of morbidity in this country, with over 400,000 cholecystectomies performed annually. While most physicians are familiar with the evaluation and management of straightforward cholelithiasis, less common biliary tract problems pose considerable diagnostic and therapeutic challenges. This report discusses three illustrative cases: operative common duct injury, penetrating traumatic injury, and intrahepatic ductal carcinoma, all of which are extremely difficult to manage, with emphasis placed on useful diagnostic studies and surgical concepts.

Case Reports

Case 1: A 47-year-old truckdriver presented at the hospital with a 10-day history of vague abdominal pain, nausea and vomiting, and the progressive development of dark urine and white stools. He had a 10-15 pound weight loss in the preceding month. His temperature was 100° and his abdomen was protuberant. Scleral icterus was present. The white blood count was 24,000 with a BUN of 59 and a creatinine of 4.1 His bilirubin was 13 mg % and alkaline phosphatase was markedly elevated. The admitting diagnosis was obstructive jaundice with superimposed cholangitis and acute renal failure.

Volume repletion was instituted and the patient was given cefazolin and tobramycin after blood

cultures were obtained. Biliary ultrasound was non-diagnostic. Within 24 hours the patient's condition deteriorated and his temperature rose to 104° F. Laboratory evaluation showed a white blood count of 31,000 with a bilirubin of 40 mg% and a creatinine of 9.0 %. Blood cultures were positive for *Klebsiella*.

At emergency laparotomy a large inflammatory mass was found in the right upper quadrant. Dissection into this phlegmon demonstrated a subhepatic abscess without apparent perforation of the gallbladder. The gallbladder was atrophic, and was densely adherent to surrounding structures, while the common bile duct was 1.5 cm in diameter. During cholecystectomy the common bile duct was injured even though it was removed through a retrograde approach. The injury was a partial transection involving two-thirds of the circumference of the wall of the common bile duct. It was repaired over an 18 French T-tube with interrupted 4-0 chromic catgut sutures. An arteriovenous shunt was inserted for dialysis. The patient's sepsis cleared but he required hemodialysis for several months. He subsequently developed a biliary-cutaneous fistula and a cholangiogram documented a large stone retained in the common duct, with a stricture at the site of repair.

Following improvement of his renal failure, a repeat cholangiogram demonstrated a near total stricture within 1 centimeter of the bifurcation of the hepatic ducts (Fig. 1). The patient was operated on again for resection of the strictured segment to the level of the hepatic duct bifurcation. A retrocolic, retrogastric Roux-en-Y limb of jejunum

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Grand Rounds

was constructed with an end-to-side polypropylene anastomosis of the common duct to the intestinal wall. After an uneventful postoperative recovery, the patient is well nine months later.

Comment

Common bile duct injuries following cholecystectomy fortunately occur in a small percentage of cases and, with continued attention paid to meticulous details of operative performance, injuries will be nearly eliminated. The patient described above had his gallbladder removed in a retrograde fashion, which is the safest means of performing the procedure, yet a ductal injury still occurred. In this case, severe inflammation and infection predisposed to the injury. The surgeon may elect in such circumstances to perform a tube cholecystostomy rather than attempt to remove the gallbladder. However, in this patient, this option was precluded because his gallbladder was contracted and the cystic duct was not patent.

Prompt recognition of a ductal injury is crucial. Occasionally, primary repair may be accomplished over a T-tube stent; however, the failure rate of such a procedure is very high. A stricture frequently develops that requires secondary re-

operation. When reconstruction is necessary, we attempt to dissect back to unscarred common bile duct and perform a biliary-enteric anastomosis at this site, as we did in the patient described. More commonly, the dense inflammatory reaction surrounding the duct extends into the hilum of the liver. In this case, the mucosal patch technique as advocated by Rodney Smith¹ is useful.



Fig. 1. The T-tube study showed a complete stricture at the bifurcation of the hepatic ducts.



Fig. 2. This study was performed by injecting dye percutaneously into the hepatic ductal system. The right ducts are atrophic while the left hepatic duct is markedly dilated. The common bile duct is also dilated secondary to a stone in the distal portion of the duct (arrow).

Grand Rounds

Case 2: A 43-year-old black man was stabbed in the right upper quadrant with a "long knife." At operation, a hematoma was found in the area of the porta hepatis, with bile stained tissue present. Exploration of the porta hepatis disclosed a through-and-through wound of the common hepatic artery with an AV fistula between the common hepatic artery and the portal vein, which had an injury in its anterior wall. The common hepatic duct measured 5 mm in diameter and had a through-and-through wound 2 cm long that involved the anterior and posterior wall immediately below the confluence of the left and right hepatic ducts. The AV fistula was managed with great difficulty by ligation of the common hepatic artery and lateral venorrhaphy of the portal vein laceration. Since the small common duct could not be closed on its anterior and posterior walls without compromising the lumen, a T-tube was placed in the left hepatic duct. The nature of the wound did not permit drainage of both the left and right ductal system.

Initially, the patient did well and his T-tube was clamped without difficulty, permitting his hospital discharge. However, two months post-operatively his T-tube was dislodged. The patient developed a biliary fistula and cholangitis and his temperature spiked to 105°; his bilirubin was 3.3 mg % and alkaline phosphatase was 1350. A per-



Fig. 3. The celiac angiogram shows virtually no flow into the right lobe of the liver while the left hepatic lobe has excellent arterial supply.

cutaneous transhepatic cholangiogram showed a dilated left intrahepatic ductal system with compression of the right ducts, suggesting hepatic atrophy. A stone was present in the distal common bile duct (Fig. 2). An emergency procedure was performed to decompress the biliary tree. This was accomplished by T-tube insertion into the dilated left hepatic duct and the common duct stone was removed. Additionally, a sphincteroplasty was performed to facilitate drainage into the duodenum. The patient had a smooth post-operative course and was discharged two weeks later.

Two months after the second procedure was done, the patient again developed spiking temperatures to 104° and was thought to have recurrent cholangitis. Antibiotics were administered and the T-tube was noted to be patent. A hepatic angiogram was performed to ascertain the status



Fig. 4. This study was obtained by injecting the intrahepatic stent. The duct is not dilated and empties well into the jejunal limb (arrow), which has been anastomosed to the duct.

Grand Rounds

of the liver blood supply, which was surgically altered during the treatment of the initial injury. The arterial supply to the left lobe was excellent, while that of the right lobe was markedly diminished (Fig. 3). A T-tube showed a stricture at the confluence of the hepatic ducts. Because the patient continued to have complications, a third operation, to reconstruct the biliary tree, was undertaken.

At operation a fibrotic stricture of the proximal bile duct and an atrophic right lobe were found. A right hepatic lobar resection was performed with a Roux-en-Y jejunal loop anastomosed to the left hepatic duct. The mucosal patch technique as described by Rodney Smith¹ was used to create the biliary-enteric anastomosis. A study through the silastic stent showed good healing at two months (Fig. 4). The patient has had a benign postoperative course and is doing well 10 months after operation.

Comment

Biliary tract injuries following penetrating trauma occur relatively infrequently and with enough variation that there are few reports in the literature that discuss the management of these treacherous problems. Initial technical management is difficult because the ductal strictures have generally been of normal caliber preoperatively and are not easily repaired. When the diameter of a duct is large enough, and the injury is in an anatomic location that allows it to be repaired primarily, we repair it over a T-tube. If the injury occurs at or near the confluence of the ducts, we attempt to entubate at least one duct to ensure adequate biliary decompression until enough ductal dilatation has occurred to allow a secondary reconstructive procedure. The use of long-term in-dwelling T-tubes is frequently associated with problems related to sepsis and dislodgement of the tubes. The use of the mucosal patch technique has been extremely successful in repairing strictures from operative injuries and appears to have been successful in treating this traumatic stricture.

Case 3: A 67-year-old man presented with a one-month history of jaundice and generalized itching. Physical examination was unremarkable except for marked icterus. His total bilirubin was 16.5 mg % with an alkaline phosphatase of 1260

(upper normal 106). After a normal upper gastrointestinal series was performed, ultrasound showed a non-dilated gallbladder without stones and intrahepatic ductal dilatation. A percutaneous transhepatic cholangiogram (PTC) disclosed an intrahepatic ductal obstruction at the confluence of the ducts (Fig. 5). The patient chose to have a resection performed for cure or palliation depending on the extent of tumor.

A mass was present at the confluence of the hepatic ducts and extended into the liver. It was diagnosed as adenocarcinoma after a full-thickness biopsy of the duct wall. There was no evidence of tumor dissemination. The liver was then widely mobilized, with division of its ligamentous attachments to the diaphragm, while its portal triad structures were isolated and controlled. The liver was then split by electrocautery until the tumor was encountered. The mass was dissected from the portal vein posteriorly and excised with a margin of adjacent liver. A defect was present in the liver parenchyma with right and left duct openings. A Roux-en-Y loop of jejunum was brought into the liver defect and separate jejunal-ductal anastomoses were performed to both the left and right main hepatic ducts. Postoperatively the patient had rapid clearing of his jaundice and did well. A follow-up contrast study showed good resolution of the dilatation and prompt emptying into the intestinal loop (Fig. 6). Twenty-four months after the operation, he is asymptomatic and his bilirubin is 0.6 mg %. The alkaline phosphatase remains elevated at 550 units.

Comment

This particular type of tumor was brought to medical attention at the Mayo Clinic by Klatskin,² who noted that 1) the diagnosis was often missed at operations for obstructive jaundice, 2) death resulted from liver failure and sepsis rather than from massive cancer spread, 3) good palliation was possible if the tumor was bypassed or removed, and 4) internal drainage appeared to offer better palliation than external drainage. The occurrence of cancer at the confluence of the bile ducts was 15% in a series of 259 biliary tract malignancies reported at the Mayo Clinic by Akwari and Kelley.³ They reported an average survival of 10 months in patients who had internal drainage while survival following resection av-

Grand Rounds



Fig. 5. A transhepatic cholangiogram shows a markedly dilated right hepatic duct without filling of the left ductal system. The sharp cut-off is suggestive of a carcinoma.

eraged 33 months. In a recent series of patients with resection of Klatskin tumors, Launois⁴ reported that all 11 patients operated on survived the procedure, with five living longer than three years without recurrent disease. Comprodon⁵ has successfully treated several cases and Hart and White⁶ reported eight long-term survivors of the 10 patients operated on with a technique such as that employed for our patient.

For patients with intrahepatic ductal cancer several options are available, depending on the extent of disease and the general status of the patient. One option available is nonoperative treatment with percutaneous biliary decompression. This can be performed in a radiology suite and several units have reported success in using it alone for palliation, and as a preoperative adjunct to allow for biliary decompression before a major procedure. This offers the theoretic advantage of relief of jaundice without a major operation. We have encountered major complications with sepsis and hemobilia using this technique, but it is an option to be considered, especially in poor-risk candidates for operation. If operative therapy is elected, its goals may be to palliate or potentially to cure. Palliative procedures include internal decompression into a convenient loop of intestine or external entubation. Such procedures

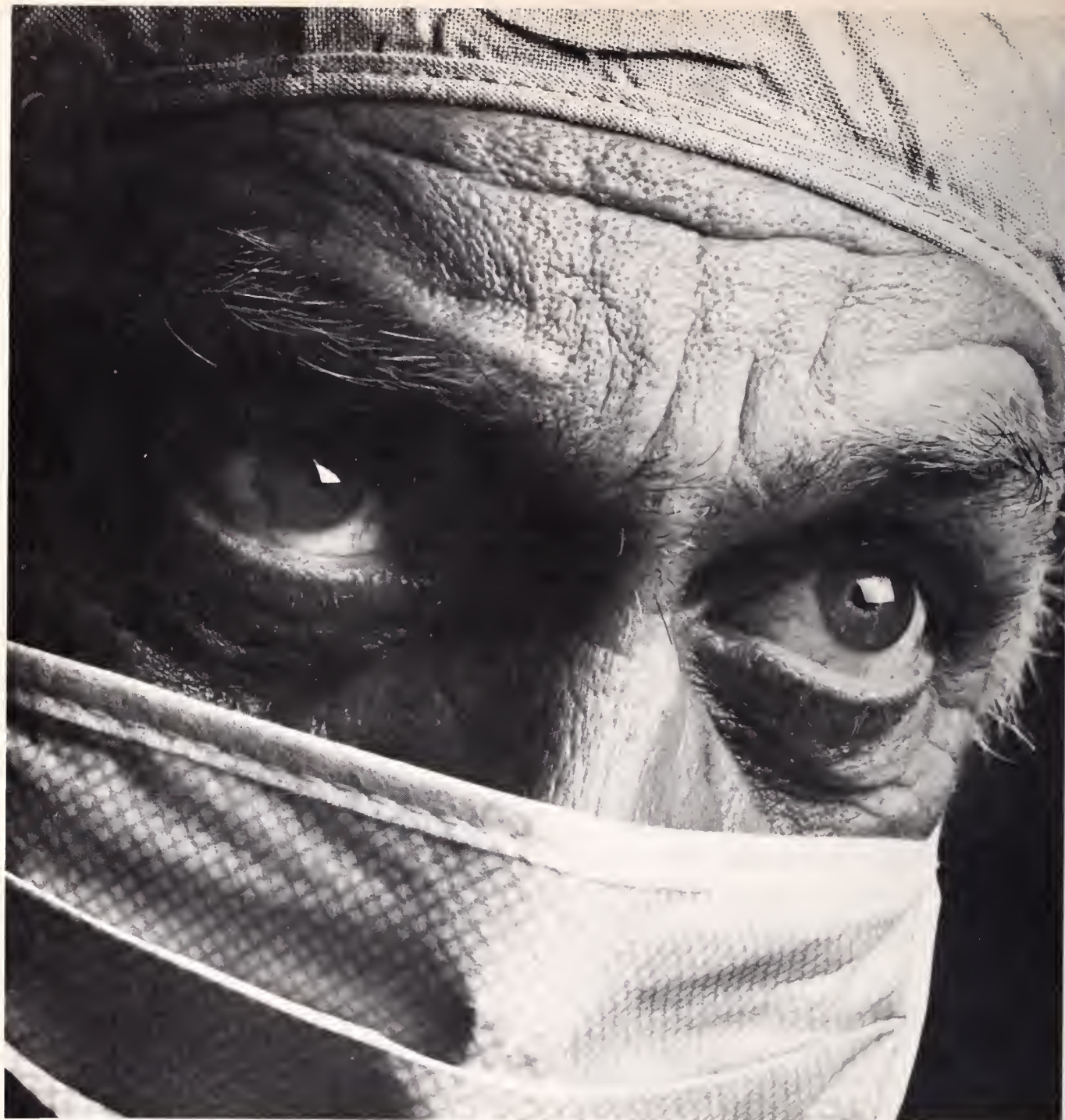


Fig. 6. A study following resection of the tumor with reconstruction shows good filling of the left and right hepatic ducts, which are not dilated. The dye empties promptly into the jejunum.

often relieve jaundice and severe pruritus and should be performed for relief of pain even if long-term cure is not expected. The curative procedures include the type performed in Case 3, with splitting of the liver to remove the tumor or performing a partial hepatectomy with hepaticojejunostomy, if the tumor involves only one lobar duct. Liver transplantation, while theoretically feasible, is not a practical alternative.

This patient's condition was rapidly evaluated and he spent only four preoperative days in the hospital. We believe that judicious use of ultrasonography allows a physician to discern whether the gallbladder is diseased and whether the intrahepatic ducts are dilated. If the ducts are dilated, we perform a percutaneous transhepatic cholangiogram, which localizes the level of obstruction and often affords clues to whether the lesion is a tumor or a stone.

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea and vomiting. These seem more prominent in ambulatory than in nonambulatory patients. Some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity (jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors, and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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EQUAGESIC—Abbreviated Summary

INDICATIONS Based on a review of this drug by the National Academy of Sciences' National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly effective" for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use (i.e., more than four months) has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons (e.g., alcoholics, former addicts, and other severe psychoneurotics) has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood and in near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Succidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few succidal attempts were fatal; although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure pulse and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants (e.g., caffeine, Meclizol, or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops as a rule in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions. Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have also been reported.

More severe cases observed only very rarely may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

OVERDOSE Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoadicidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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Recent Advances in Aerosolized Medications

Stanley R. Rehm, M.D.

Therapeutic agents marketed as aerosols are uniquely designed to reach the lungs and exert a rapid, direct pharmacologic effect with minimal systemic side effects. With the recent development and marketing of aerosolized steroids, cromolyn sodium, and beta-2-specific bronchodilators, it is now appropriate to review the current status of this form of respiratory therapy.

The safety of inhaled adrenergic bronchodilators was called into question several years ago, but recent studies have shown no evidence of significant risks to patients, and apart from their recognized cardiostimulatory side effects, these drugs are uniformly recognized as safe and effective. It should be noted, however, that the traditional catecholamine-derived bronchodilators have been largely supplanted by a newer family of bronchodilators whose "beta-2" action provides bronchodilation with negligible cardiac stimulation. These new drugs have the additional advantage of a duration of effect approaching twice that of catecholamine derivatives. However, unlike the catecholamines, they are well absorbed from the gastrointestinal tract, so aerosolized medication that impacts on the pharynx and is swallowed may contribute substantially to systemic effects of the drug, and measures designed to prevent extrapulmonary absorption achieve added importance.

The newest aerosolized bronchodilators include generic atropine and a new congener, ipratropium bromide. The fear that such anticholinergic drugs would cause drying and inspissation of pulmonary secretions has not been proven true, and these drugs can be given safely. Since they have a different mode of action from the adrenergic bronchodilators, their effect may be additive.

Steroids given by aerosol yield negligible systemic blood levels, and suppression of pituitary-adrenal function does not occur at conventional doses; the physician should, however, be wary of adrenal insufficiency during withdrawal of previously prescribed

systemic steroids. Beclomethasone is, however, ineffective at controlling extrapulmonary manifestations of the atopic diathesis such as eczema, and these allergies may emerge as beclomethasone is used to replace oral prednisone. The single significant side effect is oropharyngeal candidiasis (not systemic or invasive candidiasis), and this can be largely alleviated by minimizing pharyngeal deposition of the drug.

Aerosolized cromolyn sodium has now had extensive clinical use with no evidence of significant side effects apart from minor throat irritation, nasal congestion, and rare idiosyncratic reactions. Its formulation as a powder, however, may result in bronchospasm in some patients with reactive airways. Patients must also be carefully instructed that cromolyn is not a bronchodilator, and that it must be used as prophylaxis rather than therapy for bronchospasm.

The mucolytic agents are now recognized as being too irritating for aerosol use. They are effective, however, when given via endotracheal tube or via bronchoscope to patients with refractory mucus plugging.

Antibiotics have been given by aerosol to decrease colonization of the respiratory tract in seriously ill patients, and may prove useful in patients with bronchiectasis and cystic fibrosis, but serious infections should continue to be treated with parenteral or oral antimicrobials.

Since up to 80% of an aerosolized medication may be deposited in the mouth and swallowed, a major key to the effective use of aerosolized medications is to employ techniques which decrease the amount of drug deposited in the pharynx. Three maneuvers have now been shown to be of demonstrable benefit. The simplest is to instruct the patient to rinse out his mouth or gargle with water after using any aerosol. This alone may be sufficient to prevent oropharyngeal candidiasis in patients taking beclomethasone, and may alleviate some bronchodilator-associated tachycardia. In addition there are now several medications whose inhalers

AEROSOLIZED MEDICATIONS

Family of Drugs	Generic Name	Trade Name
Bronchodilators		
Catecholamine-derived	racemic epinephrine isoproterenol isoetharine	Vaponephrine Isuprel, Medihaler-Iso, Norisodrine Bronkosol
Beta-2-adrenergic	metaproterenol terbutaline salbutamol, albuterol fenterol	Alupent, Metaprel Brethine, Bricanyl Ventolin, Proventil Berotec
Anticholinergics	atropine ipratropium bromide	(generic) SCH 1000, Atrovent
Steroids	beclomethasone	Vanceril, Becotide
Bischromone	cromolyn sodium	Intal, Aarane
Mucolytics	N-acetylcysteine dornase	Mucomyst Dornavac
Antibiotics	nystatin polymyxin B gentamicin	(generic) (generic) (generic)

incorporate "spacer devices," which are simply segments of tubing inserted between the nebulizer and the patient's mouth. These devices allow the largest particles to "rain out" in the tubing, so that only small droplets appropriate for pulmonary deposition enter the mouth. There are no disadvantages to the use of these devices, and their implementation as they become available is strongly recommended. Finally, it should be emphasized that the principal reason for failure of a patient to respond to aerosolized medication is hand-lung dyscoordination; the most common error is for the patient to inhale fully and then actuate the nebulizer. If a patient reports no benefit from a prescribed aerosolized drug, his use of it should be personally observed by a physician or paramedical assistant, and he should be taught to inhale slowly, activate the aerosol

as he inhales, complete his inhalation, and hold his breath for approximately 10 seconds. This observation and instruction may need to be repeated several times at clinic visits to allow patients to receive maximal benefit from this highly effective form of respiratory therapy.

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But too much stress, or chronic over-stress, can lead to serious health problems like high blood pressure, ulcers and other diseases. Left uncontrolled, it could even lead to heart disease.

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own thing." Meditate, pursue a quiet hobby, go for a walk, or just relax. Learning to relax is learning to handle stress.

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works just as well in their homes.

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- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.



- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching. It may be manifest simply as a failure to heal. During long term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section). Complete literature available on request from Professional Services Dept. PML.



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EDITORIAL

OUR school days never really end. It is true that the emotional but traditional farewell of graduation closes the initial chapters of our formal education. Nevertheless, we physicians seemed destined never to be free of the seduction of new learning. Our public form may be the office or the lecturn, but each of us bears the onus of accommodating advances with our acquired framework. Incorporating information and integrating it into our medical performance is really part of the territory. To some resistance to change is not a signal of intrasigence, but a celebration of our forefathers accomplishments. Certainly the likes of Osler and Rush, of Flexner and Harvey, would be honored by our reverence. Their spirit of inquiry and zeal to trailblaze are most assuredly reincarnated in some of our modern day pioneers. Medical people consider their fraternity a renewable source and as a transfusion of novel blood which will hopefully be compatible and perhaps invigorating.

Each fall the school bells fetch their students, each with expectations and hopefully enthusiasm to attain them. We medical people are likewise beckoned by our hospitals, medical societies, and colleagues at sister institutions to assume our role as perpetual students. Exciting happenings in our fields seem to be broadcasted, the details of which are tempting to have. Such a milieu is most useful and to be encouraged.

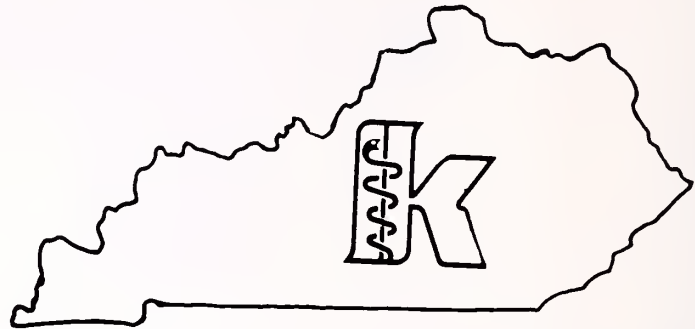
We at the helm of the *Journal* are asked to steer a course, to choose information from fiction or conjecture. Like the critics we get to see first, but must see all. The *Kentucky Journal* is meant to be educational and informational, our mandate is clear.

Fall is upon us now and all of us students take pen in hand and accept the challenge of learning.

Stephen Z. Smith, M.D.

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LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the *Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To The Editor:

I read with great interest the article "Medical School Selection: A New Process For An Old Problem" by Doctors Leigh and Clawson. I believe the article is well written. We are pleased that there exists a unified candidate evaluation system. This is highly commendable! However, I was surprised to learn that 45 students were accepted without a personal interview.

I believe that Doctor David Stewart's concise editor's note is valid. Numerical grades, M.C.A.T. scores, letters of recommendations, humanitarian service, and religious activities, interpersonal or group accomplishments, residence in physician shortage areas are important criteria.

I strongly believe that personal interviews of each candidate should be mandatory. I would recommend that three personal examiners interview each candidate and that the wife or husband also be personally interviewed.

I am not an authority on medical education by any means, but I did teach surgery to medical students and surgical residents at the University of Louisville School of Medicine for 10 years. I believe that the late Arnold Griswold, Professor and Head Department of Surgery University of Louisville School of Medicine was correct in stating that medical school graduates practice in the city or town where their wife or husband wishes to live and raise their family where a good basic education can be obtained. Another major consideration is that the doctor of medicine wants to practice the finest quality of medical care that he or she has been trained to perform. Doctor Griswold rightfully stated that if the rural community made efforts to attract young doctors they would come to the areas where the medical needs of rural Kentucky are most urgent. There is a plethora of superbly trained specialists in Louisville and Lexington. We do not need any more "unemployed specialist clubs" meeting in the hospital coffee shops anticipating a referral. These people have had excellent training, but they are under utilized. I, too would like to see a 10-year follow-up of the grad-

of both of the fine Kentucky medical schools. I personally would like one psychiatrist and two seasoned practicing clinicians form the base for this most important personal evaluation team.

As doctors we have all known of candidates who "on paper" looked promising, but went to medical school because the parents wanted another physician in the family. Some of these people lacked the personal zeal and either failed in medical school and became mediocre doctors because there true life goals were not in the practice of medicine.

In conclusion, there is and never will be a 100% perfect evaluation system, but I personally believe that any medical school selection system would be improved if personal interviews of the candidates were included.

Giles L. Stephens, M.D.

Former Assistant Clinical Professor of Surgery at the University of Kentucky, College of Medicine and the University of Louisville School of Medicine

To The Editor:

Let's talk about the joy one feels when he controls his environment. For example, controlling a horse, an activity for the handicapped person which makes him like everyone who horseback rides. This is what is being attempted, horseback riding for the handicapped.

Meetings were organized, people became interested, and the ball started rolling. It came to the culmination of a premiere showing of the film, "Ability not Disability." The film was shown on August 7, 1981 at 7:30 p.m. at the Kentucky Horse Park. It was followed by a reception in which individuals in the medical as well as equestrian fields exhibited excitement about the potentials of this program.

Our proposal goes as follows: Horseback riding for the handicapped is not only recreational but thera-

Letters

peutic, in that it can be used as a reward system in behavior modification for communicatively handicapped as well as other handicaps.

The program can help assist in the development of self-esteem, confidence, motivation and coordination. It develops a sense of responsibility, and provides exposure to nature. Horseback riding also relaxes the back muscles.

The proposed location of the project would be the Kentucky Horse Park. Since the facility is already available there is no extensive cash outlay and the facility is flat, designed with the handicapped individual in mind. The Kentucky Equestrian Education Program offers the possibility of additional instructors and volunteers for the program, as do the universities and services clubs in the area.

There is a small corps of people already interested in Horseback Riding for the Handicapped and willing to work on such a program, some within the Horse Park itself. The Board of Directors of the Horse Park also appears to be interested in such a program, and has offered support and motivation.

At this point this particular corps of people have been incorporated and are now known as the Central Kentucky Riding for the Handicapped, Inc. Articles of incorporation as well as the charter have been registered with the Secretary of State. Now we are working on a presentation to the Board for confirmation of use of the Horse Park facility. We are also attempting to obtain a non-profit status so that donations can be made by organizations as well as individuals.

Safety will be of the greatest concern. Special safety equipment will be used for the handicapped, such as helmets, leather belts with grips so that volunteer side walkers can help control the students' balance.

Side walkers are people who walk beside the horse and see that the child maintains balance. If the child loses balance the volunteer is there to help them regain their balance.

The leader of the horse controls the gaits the horse goes through. Therefore, the child is not at anytime attempting a task he is unable to control. At some point in time an individual may be able to control a horse independently. However, that would be determined by the instructor.

There are many needs that should be met before the program can go into full swing. However, it is anticipated that the program will begin with small classes, and also be working at first with the less severely handicapped, so that the instructors can gain confidence and experience.

There will be special training for the instructors,

volunteers and horses to be used in this program. At no time will the number of students per class be more than six individuals. At all times each student will be known by name.

Physical therapist intervention will be needed with each individual case and specific exercises recommended for each student that can be done on horseback.

Part of the time the student will be caring for the horse. Part of the time will be spent riding and doing exercises on horseback. Exercises can be boring, but when they are done on horseback they become fun.

Most handicapped persons will be eligible. Ramps would be needed for persons who are wheelchair bound for mounting purposes. Eligibility would be determined by a doctor's recommendation.

Very few disabilities cannot be served by this program. Vision impaired can be served, hearing impaired, the communicatively impaired, the physically impaired and the multiple handicapped. Rheumatoid arthritis and children with uncontrollable seizures cannot be served.

"I saw a child who couldn't walk get a horse and laugh and talk."¹

If there are any questions, concerns, or if you would like to have more information about Horseback riding for the Handicapped, contact Debra Marcum, Central Kentucky Riding for the Handicapped, Inc., 208 Somerset Village, Somerset, Kentucky 42501, or North American Riding for the Handicapped Ass. Inc., P.O. Box 100, Ashburn, VA. 22011

References 1. Davies John. Poem. *I Saw A Child*, portion.

Debbie Marcum
MA.CCC-SLP

To The Editor:

The National Pancreatic Cancer Project was funded by the National Cancer Institute in 1975 to stimulate research related to pancreatic cancer, now the fourth cause of death from cancer in the United States.

Patients, and families of patients with pancreatic cancer, often contact the National Cancer Institute, from which they are referred to this Project. In a determined effort to avoid any interference with the patient-physician relationship I tell patients that I will share whatever information I have with the responsible physician, but I do not voice any opinions directly to the patient or to the patient's family.

To improve the care of these patients, we try to maintain current information on new approaches to the diagnosis and treatment of pancreatic cancer and the names of individuals or institutions participating in advanced treatment protocols. We have information

Letters

about certain institutions with highly specialized facilities, some of which provide transportation and medical care at no cost to the patient. This kind of information I am happy to share with any physician. The final recommendation for a patient's treatment by any modality must come from the primary physician.

Isidore Cohn, Jr., M.D.

Project Director

Louisiana State University Medical Center

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Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

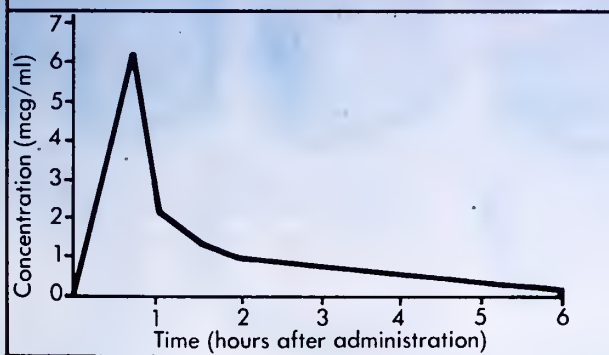
*Dosage should not result in a dose higher than that for adults.
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- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T₀ ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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[†]Due to susceptible organisms.

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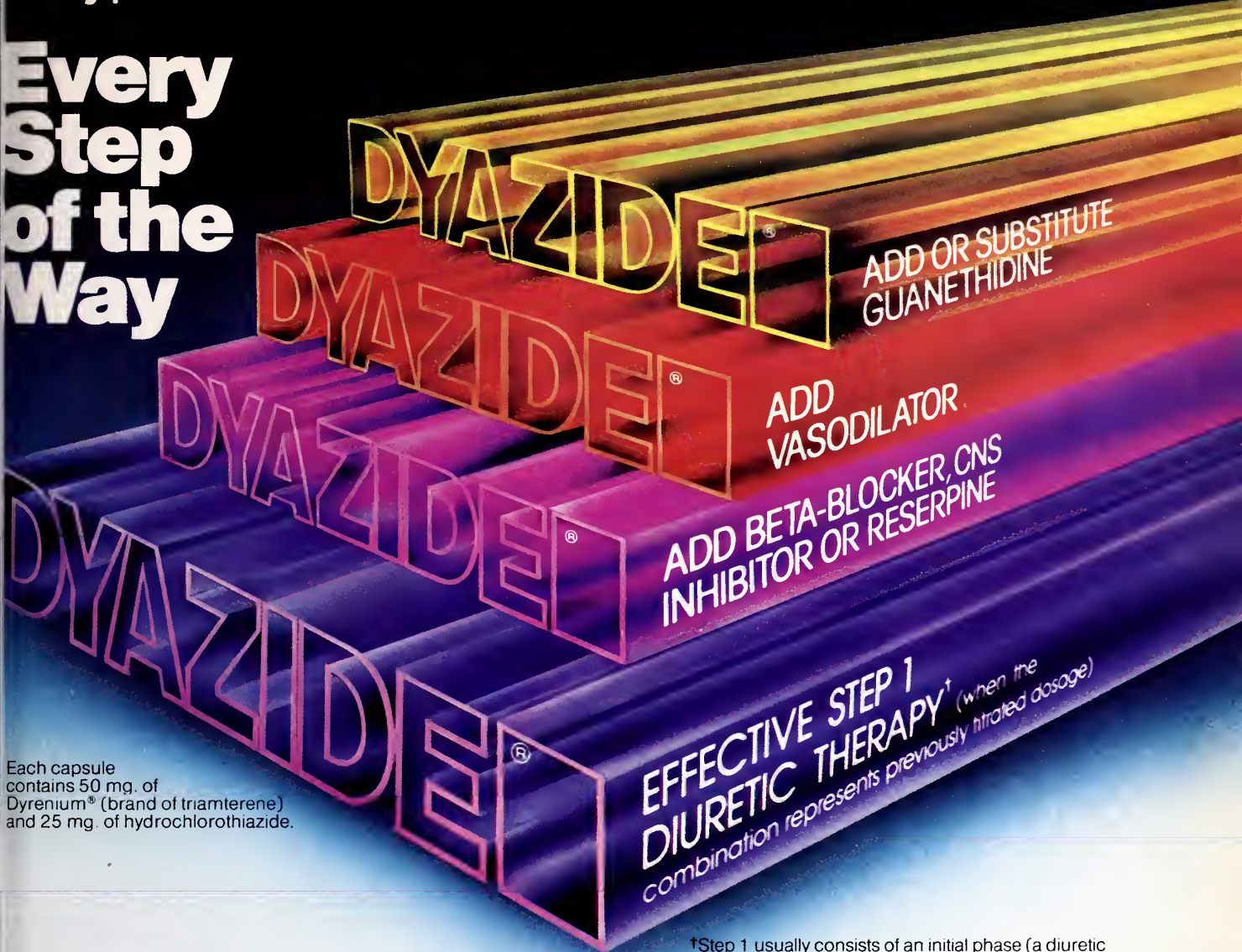
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Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. The following is a brief summary.

WARNING
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and

triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently, both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased

dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and Dyazide should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

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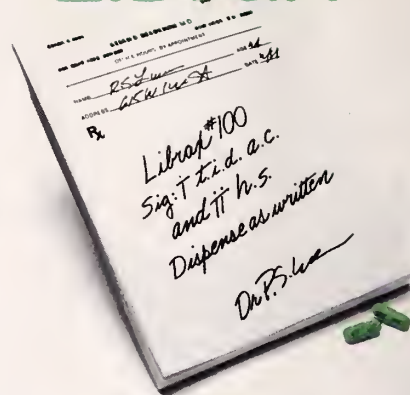
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Final classification of the less-than-effective indications requires further investigation.

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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Irritable

BOWEL SYNDROME*

Artist's concept of myoelectrical slow waves of the colon which seem to determine the frequency of colonic motor activity

A visible difference in myoelectric rhythms of the colon

Studies reveal an increased frequency of 3-cycles-per-minute slow wave basic electrical activity in the colons of patients with IBS—a significant difference in basic colonic rhythm patterns from normal subjects.^{1,2} These findings suggest a physiological basis for the spasm and hypermotility characteristic of IBS. The role of severe anxiety in triggering or aggravating such symptoms has long been recognized. Consequently, treatment should focus on both aspects of the problem.

Librax: A logical choice for patients with IBS

Logical, because the antimotility-antispasmodic actions of the Quarzan® (clidinium bromide/Roche) component of Librax can help to relieve the distressing abdominal symptoms associated with IBS.* Logical, because the antianxiety actions of the Librium® (chlordiazepoxide HCl/Roche) component can help to reduce the excessive anxiety that can contribute to IBS flare-ups.

References: 1. Sullivan MA, Cohen S, Snape WJ. *N Engl J Med* 298:878-883, Apr 20, 1978
2. Snape WJ et al. *Gastroenterology* 72:383-387, Mar 1977.

Specify **Librax**®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety/Antisecretory/Antispasmodic

*Librax has been evaluated as possibly effective for this indication. Please see summary of prescribing information on facing page.

ROCHE®

for Knotts in the night

Prescribe new formula

Quinamm^{*}

(quinine sulfate tablets)

each tablet contains quinine sulfate 260 mg



Specific therapy for painful night leg cramps

Merrell Dow

*Trademark of MERRELL-NATIONAL LABORATORIES Inc.,
Cayey, Puerto Rico 00633

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes, or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

Quinamm[™]

(quinine sulfate tablets)

CAUTION: Federal law prohibits dispensing without prescription.

BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps.

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision; however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity. (See CONTRAINDICATIONS.) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine

have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties.

Urinary alkalinizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes.

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM/kg) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative, when mammalian liver homogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage. (Individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision, tinnitus, deafness, and vertigo, headache, nausea, vomiting, fever, apprehension, restlessness, confusion, and syncope.

Dermatologic: allergic, cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular, or scarlatiniform), pruritus, flushing of the skin, sweating, occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related), epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSEAGE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring. After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October, 1980.

Licensors of Merrell:

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to

Merrell



MERRELL DOW PHARMACEUTICALS INC.
Subsidiary of The Dow Chemical Company
Cincinnati, OH 45215, U.S.A.

ASSOCIATION NEWS

KMA Holds 131st Annual Meeting

More than 2,000 attended this year's KMA Annual Meeting. Medical authorities from across the nation discussed topics on the theme of "Problems in the Human Life Cycle—Cardiovascular Disorders."

Ballard W. Cassady, M.D., Pikeville, was installed as President and Dwight L. Blackburn, M.D., Berea, was chosen President-Elect for the coming year. Rich-

ard F. Hench, M.D., Lexington, was elected Chairman of the Board of Trustees and Sam W. Weakley, M.D., Louisville, was elected Vice President.

A special feature highlighting events during the Annual Meeting as well as the official Digest of Proceedings of the House of Delegates will be published in the December *Journal of KMA*.

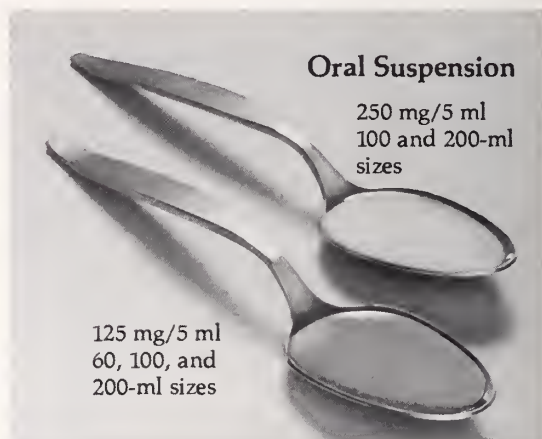


From left to right: Frank R. Pitzer, M.D., Hopkinsville, KMA Past President; Ballard W. Cassady, M.D., Pikeville, KMA President and Dwight L. Blackburn, M.D., Berea, President-Elect.

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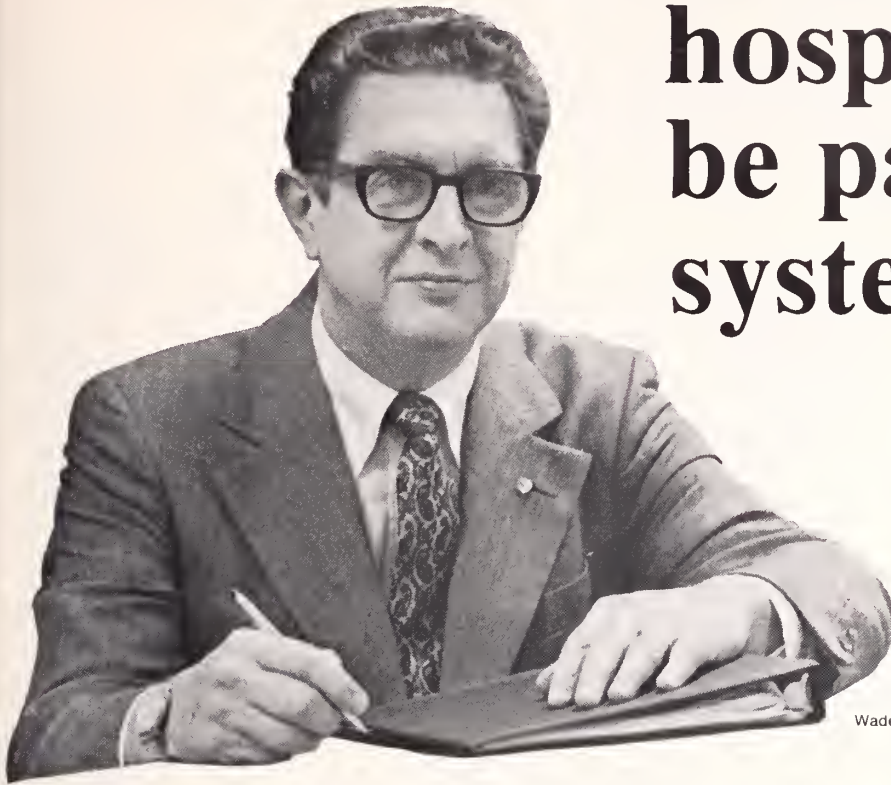
Additional information available
to the profession on request.



000823

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Indianapolis, Indiana 46285
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Carolina, Puerto Rico 00630

Someday nearly all hospitals will be part of a system.



Wade Mountz, President, NKC, Inc.

The others will wish they were.

Nearly one-third of the nation's hospitals are already owned or managed by systems* that are designed to achieve superior results through better management of scarce resources.

Hospital administrators and boards that fail to recognize the complexities of operating a hospital in today's highly competitive environment are flirting with extinction. The fact is: Few hospitals can successfully go it alone.

At NKC, we are convinced that within this

decade, most hospitals will find it advantageous to join a system. So, we have committed ourselves to a leadership role in managing not-for-profit community hospitals. And we are picking our partners. Our results have been most impressive, and we will be pleased to share them with you.

For further information on how NKC can help your hospital survive, contact William Galvagni, vice president.

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NKC, Inc. is a consolidation formed for excellence in patient-centered care.

* Twenty-nine percent of the nation's general community hospitals were in centrally managed multi-hospital systems in 1980. And this number is multiplying rapidly. (April 1981 issue, *Modern Healthcare*)

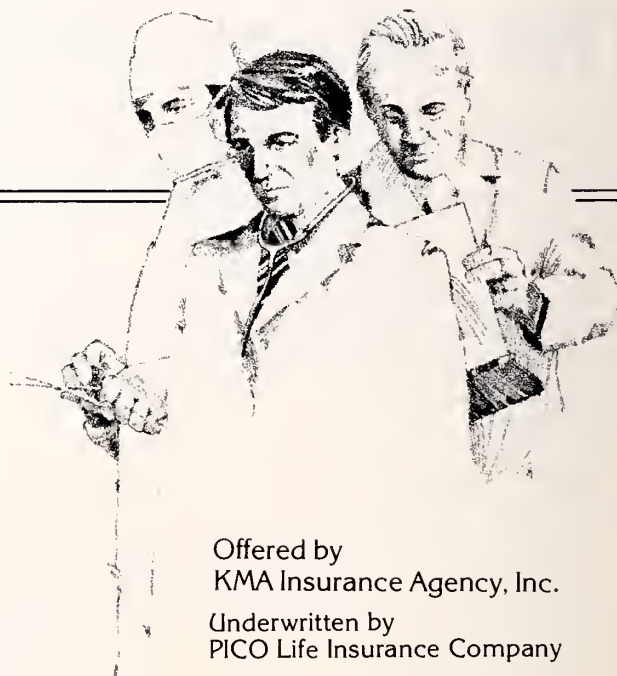
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MEMBERS IN THE NEWS

Honors Bestowed

The following KMA members have obtained the AMA Physician Recognition Award. These physicians were honored for accumulating 150 hours of continuing medical education credits during the past three years.

J. Kenneth Allen, M.D., Prospect
Reginald S. Bowen, M.D., Mount Washington
John Burt Checton, M.D., Louisville
Kent Lee Davis, M.D., Lexington
Oskar Peter Friedlieb, M.D., Ashland
Glen Kenneth Goodman, M.D., Louisville
Anastacio G. Herrera, M.D., Columbia
Russell Brooks Howard, M.D., Louisville
Eunice Louise Johnson, M.D., Lexington
Angelita Hautea Lucero, M.D., Hopkinsville
Rafael Antonio Martin, M.D., Fort Campbell
Sally Mattingly, M.D., Lexington
William Raymond Meeker, M.D., Lexington

Gary Jasper Melton, M.D., Dry Ridge
Mark Edward Middendorf, M.D., Covington
David H. Neustadt, M.D., Louisville
John H. Parks, M.D., Lexington
William Eugene Parks, M.D., Louisville
Henri Claude Richard, M.D., Radcliff
Carroll Herbert Robie, M.D., Louisville
Carl Edward Rutledge, M.D., Bowling Green
Paul David Schneider, M.D., Louisville
Irvin Englert Smith, M.D., Paducah
Jerry Lee Taylor, M.D., Maysville
H. Mac Vandiviere, M.D., Lexington
Kang Yu, M.D., Louisville

Did you know . . .

Two faculty members in the Department of Surgery at the University of Louisville School of Medicine have recently been nominated to top field positions in American medicine.

Doctor Henry D. Garretson, professor and director of the division of neurological surgery, has been elected as a member of the American Board of Neurological Surgery and Vice President of the Society of University Neurosurgeons.

Doctor Hiram C. Polk Jr., professor and chairman of the department, has been chosen President-elect of the Kentucky Surgical Society, Vice-Chairman of the Residency Review Committee for Surgery, and Secretary-Treasurer of the United States Chapter of the Collegium Internationale Chirurgiae Digestivae.

The Residency Review Committee for Surgery accredits educational programs in general surgery throughout North America. The Collegium Internationale Chirurgiae Digestivae is an international federation of surgeons skilled in surgery of the digestive tract.

AUXILIARY TO KENTUCKY MEDICAL ASSOCIATION

3532 Ephraim McDowell Drive
Louisville, KY 40205

PLEASE SEND _____ COPIES OF AKMA'S FIRST EDITION OF THE "ON CALL COOK-BOOK" AT \$8.00 PLUS \$1.75 POSTAGE AND HANDLING PER BOOK. MAKE CHECKS PAYABLE TO AKMA. PROCEEDS TO BENEFIT CONTINUING HEALTH EDUCATION.

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ADDRESS _____
CITY _____ ZIP _____

WE SUPPORT ALL PHYSICIANS

(ESPECIALLY WHEN THEY'RE ILL)

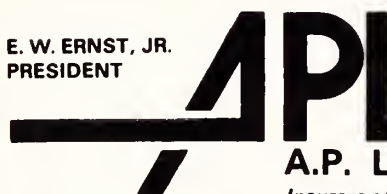
ENDORSED DISABILITY INCOME PROGRAMS FOR:

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Headquarters Activity

NOVEMBER

10 Journal Editors, Louisville
11 Emergency Medical Care Committee, Louisville
11 Maternal and Child Health Committee, Louisville
19 Medical Licensure, Louisville
26 Thanksgiving Day
27 Office Closed

3 Scientific Program Committee, Louisville
7 KMIC Board of Directors, Louisville
8 Journal Editors, Louisville
10 Committee on State Legislative Activities, Louisville
17 KMIC Board of Directors, Louisville
24 Office Closed
25 Christmas

DECEMBER

3 Specialty Group Presidents, Louisville

JANUARY

5 General Assembly Convenes, Frankfort
12 Journal Editors, Louisville

IN MEMORIAM

A. LEMUEL ROSENBLATT, M.D.

1923-1981

Louisville

A. Lemuel Rosenblatt, M.D., died July 5 at Suburban Hospital. Doctor Rosenblatt was a 1948 graduate of the University of Louisville School of Medicine. He was a physician of internal medicine and had been a member of KMA since 1952.

NORA D. DEAN, M.D.

1892-1981

Louisville

Nora D. Dean, M.D., died August 26, at her home. Doctor Dean was an anesthesiologist at St. Joseph's Hospital for 40 years and had been a member of KMA since 1952.

W. GERALD EDDS, M.D.

1921-1981

Calhoun

W. Gerald Edds, M.D., died September 6, in a hunting accident near his home. Doctor Edds operated a medical clinic in Calhoun. He was a 1950 graduate of the University of Louisville School of Medicine and had been a member of KMA for 30 years.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

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3532 Ephraim McDowell Drive
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MEDICAL OPPORTUNITIES

OBSTETRICS/GYNECOLOGY Lucrative practice for well qualified, confident obstetrician. Challenging opportunity in a town of 7,000 located in an agricultural area only 55 miles from Lexington. Service area exceeds 35,000. Over 450 births per year. 85% Catholic population. Strong medical staff support for recruiting an obstetrician. Stable economy. Extremely low bad debts. Low crime rate. Excellent financial incentives, relocation expenses, office space, and practice start up assistance. For additional information, please contact: Ernie Hawkins, Hospital Corporation of America, One Park Plaza, Nashville, TN 37203. 1-800-251-2561 or 615-327-9551 (collect).

EXCELLENT OPPORTUNITY for another obstetrician in a town of 15,000 near the beautiful Land Between the Lakes area. Primary service area of 35,000. Strong medical community. Excellent hospital. Hunting, fishing and water sports easily accessible. Two good golf courses. Financial incentives, relocation expenses, and practice start up assistance available. For additional information please contact: Ernie Hawkins, Hospital Corporation of America, One Park Plaza, Nashville, TN 37203. 1-800-251-2561 or 615-327-9551 (Collect).

GENERAL INTERNAL MEDICINE. Lucrative private practice opportunity available in a quiet rural community only one hour from Lexington. Green rolling farmland in a peaceful country setting. Ideal for family life. Horse and antique lovers' paradise. Strong medical community. Outstanding assistance and financial incentives available. Service population exceeds 10,000. For additional information please contact: Ernie Hawkins; Hospital Corporation of America; One Park Plaza; Nashville, TN 37203; 1-800-251-2561 or 615-327-9551 (collect).

DOCTOR NEEDED in Providence, KY. Population 6,000. 12,000 drawing area. A growing coal mining community in western KY. Near new Syn-fuel plants. Office space readily available with some equipment (x-ray) included. First six months to one year lease payments deferred or reduced. Located 15 miles from modern 400 bed hospital. Good third party insurance. Contact Tom Glover, Providence Medical Center Providence, KY 42450 or call collect, day (502) 667-2049, night (502) 664-6017.

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NAPLES FLORIDA, spectacular waterfront view, 3 bedroom, 2 bath condominium, elegantly furnished, tennis, pool, boating, children welcome. Weekly, monthly and seasonal rentals. Contact D. Kelly M.D. (606) 266-5674.

For your patients' benefit...

**BEFORE YOU WRITE
YOUR NEXT ANTIARTHRITIC
PRESCRIPTION,
PLEASE READ
THIS MESSAGE**



Boots announces a pharmaceutical first.

TWO WAYS YOU WILL SAVE MONEY WITH

Introducing

RUFEN® (ibuprofen)

\$1.50 REBATE DIRECT TO YOUR PATIENTS ON EVERY PRESCRIPTION OF 100. REFILLS INCLUDED.

One dollar fifty cents returned for every Rebate Coupon your patients mail in.

Every bottle of 100 tablets of RUFEN 400 mg has a Rebate Coupon attached, with full instructions for redemption.

It has already been determined, through public opinion research, that most arthritic patients will appreciate direct rebate savings as much as they appreciate the results of ibuprofen therapy.

AND RUFEN IS PRICED LOWER TO BEGIN WITH.

Boots has already priced RUFEN lower to the wholesaler and the retailer. And if these savings are passed along, as they should be, your patient will receive the benefit of this lower price. Add these savings to the rebate, and your patients receive substantial relief from the costs of a medication many of them may take for years.



RUFEN IS NOT A GENERIC. BOOTS IBUPROFEN IS THE ORIGINAL.

And if you wish, RUFEN may be substituted for Motrin®, because it is bio-equivalent.*

Original research by The Boots Company Ltd., of Nottingham, England, developed ibuprofen.

And though we introduced it ourselves elsewhere around the world, licensed ibuprofen for sale in the United States.

Motrin® (ibuprofen) is a registered trademark of The Upjohn Co.

ARTHRITIC PATIENTS BUPROFEN THERAPY.

You first came to know it as Motrin (ibuprofen), manufactured by Upjohn.

Now, as we have established facilities in America, we hope you'll come to know Boots brand name for ibuprofen as RUFEN.

BIOEQUIVALENCY? OF COURSE.*

That's why you may substitute RUFEN for Motrin.



Data on file.

ALSO: A BOOTS CONTRIBUTION TO ARTHRITIS RESEARCH WITH EVERY REBATE.

A 25¢ contribution per rebate is built directly into the RUFEN program. And with thousands of prescriptions anticipated for RUFEN 400 mg each year, the annual potential for arthritis research is enormous.



Rufen[®] (ibuprofen)

WHEN YOU'RE WRITING YOUR NEXT PRESCRIPTION FOR IBUPROFEN, PLEASE REMEMBER:

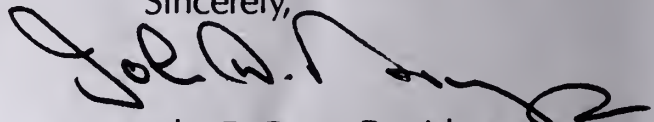
- RUFEN®** OFFERS A \$1.50 REBATE DIRECT TO YOUR PATIENTS ON EVERY BOTTLE OF 100 TABLETS OF RUFEN 400 MG.
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- RUFEN** CONTRIBUTES 25¢ PER REBATE TO ARTHRITIS RESEARCH.
- RUFEN** IS NOT A GENERIC... BOOTS IBUPROFEN IS THE ORIGINAL.
- RUFEN** (IBUPROFEN) IS BIOEQUIVALENT TO MOTRIN® (IBUPROFEN).*

I hope we've given you several good reasons to remember RUFEN the next time you prescribe ibuprofen.

If we haven't, or if you'd like to know more about Boots Pharmaceuticals or this program, please don't hesitate to drop me a line. Or call us directly at our toll-free number: (800) 551-8119. Louisiana residents, call (800) 282-8671.

To ensure that your patients receive the benefits of the Rufen program, be sure to specify "D.A.W.," "No Sub," or "Medically Necessary," as required by the laws of your state.

Sincerely,



John D. Bryer, President
Boots Pharmaceuticals, Inc.



Boots Pharmaceuticals, Inc.
6540 LINE AVENUE, SHREVEPORT, LOUISIANA 71106

Pioneers in medicine for the family

RUFEN® (ibuprofen/Boots)

(For full prescribing information, see package brochure.)

RUFEN® Tablets
(ibuprofen)

INDICATIONS AND USAGE: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in the long-term management of these diseases. Safety and effectiveness have not been established for Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNINGS).

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally; however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: Coumarin-type anticoagulants. The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS

Incidence greater than 1%

Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4% to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (including maculopapular type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see PRECAUTIONS). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** gynecomastia, hypoglycemia. **Cardiovascular:** arrhythmias (Sinus tachycardia, bradycardia, and palpitations). **Renal:** decreased creatinine clearance, polyuria, azotemia.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine, alkaline diuresis may benefit.

DOSAGE AND ADMINISTRATION: Rheumatoid arthritis and osteoarthritis, including flareups of chronic disease: Suggested dosage 400 mg t.i.d. or q.i.d.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain. Do not exceed 2,400 mg per day.

CAUTION: Federal law prohibits dispensing without prescription.

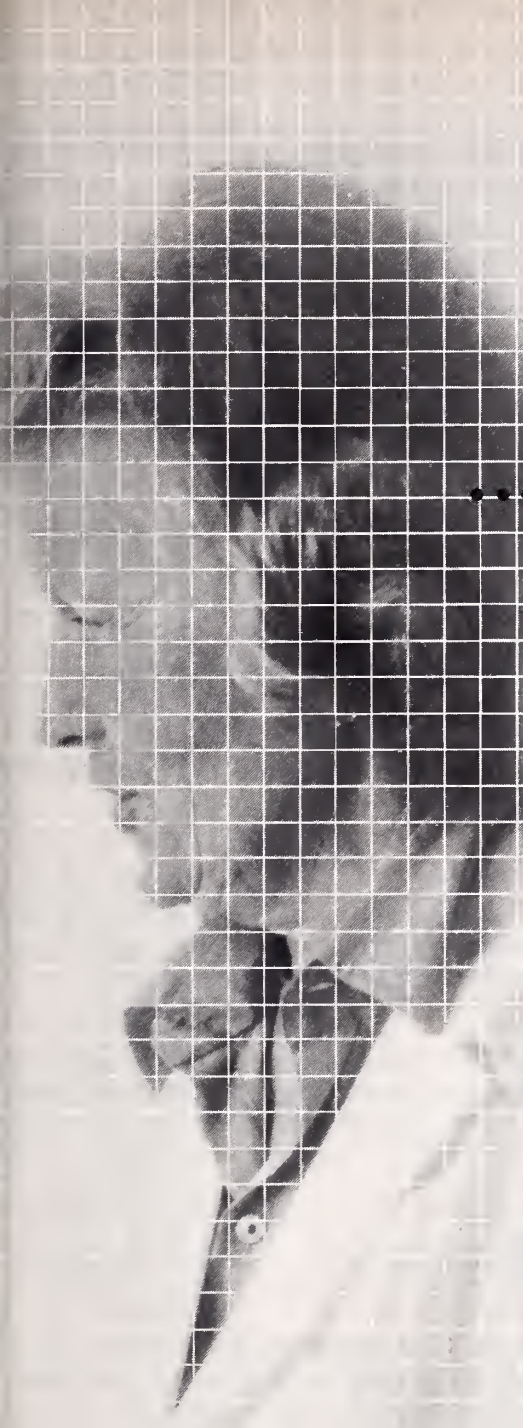
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Shreveport, Louisiana 71106



SEASON'S GREETINGS

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM[®] _{IV}

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

**BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT**



Please see summary of product information on the following page.

VALIUM® (diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500,* Prescription Packs of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

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- 8-10 American Cancer Society, National Conference-Gastrointestinal Cancer-1981. Fountainbleau Hilton Hotel, Miami Beach, FL
- 10 24th Annual Postgraduate Medical Seminar, NKC, Inc. Auditorium, Louisville, KY
- 10-11 Current Topics in Geriatric Medicine, Duke University, Durham, NC
- 10-12 Current Concepts in Cancer Therapy, St. Louis, MO
- 18-19 The Primary Care Physician and Peripheral Vascular Disease, Hyatt Regency Hotel, Lexington, KY

FEBRUARY

- 21-26 Thirteenth Family Medicine Review, Hyatt Regency Hotel, Lexington, KY

MARCH

- 8-10 Sixth National Nutrition in Pregnancy Seminar, University of Louisville, Health Sciences Center
- 24-27 International Conference on Occupational Lung Disease, Hyatt Regency Chicago, Chicago, IL

APRIL

- 1 Hypertension 1982, Marriott Inn, Clarksville, IN
- 22-24 Eighth Annual High Risk Pregnancy Management Course, Hyatt Regency, Louisville, KY

MAY

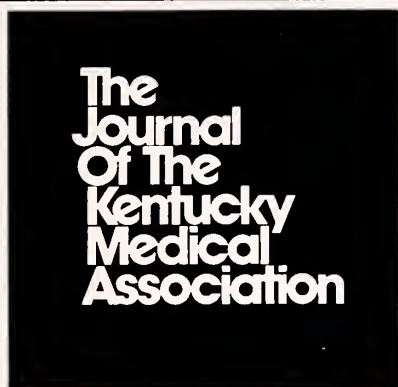
- 14-15 Vitrectomy Course, University of Louisville, Health Sciences Center
- 20 Allergy-Immunology Update, Hyatt Regency, Louisville, KY
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- 13-18 Seventh Annual Family Medicine Review, Galt House, Louisville, KY



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Ru-Tuss Tablets act continuously for 10 to 12 hours.

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED

Bottles of 100 Tablets

Bottles of 500 Tablets

Federal law prohibits dispensing without prescription

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COUGH

RU-TUSS[®] EXPECTORANT

DESCRIPTION

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
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Ammonium Chloride	200 mg
Alcohol	

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

HOW SUPPLIED

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Federal law prohibits dispensing without prescription

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Pioneers in Medicine For the Family

PRESIDENT'S PAGE



The holiday season is upon us and we look with great anticipation to visits with family and friends and the renewal of old acquaintances via cards and phone calls. In addition, many of us will pause and recognize those folks who work with us everyday in the delivery of health care.

The medical profession is fortunate to have highly qualified and dedicated men and women who share our deep commitment to patient care. Oftentimes in our attempt to squeeze every second into productive time we are not aware of that almost invisible team which conscientiously and professionally goes about its appointed duties. It has been written that the most severe criticism that can be given to any man or woman is not to find fault with them, but to ignore them completely. They don't know where they stand and don't even know whether or not they are on the team.

The hospital administrator battling the bureaucracy on our behalf and that of the patient to assure proper facilities and the latest technology; the nurse responding quickly and efficiently, thus averting that dreaded phone call in the middle of the night; the pharmacist responding to the patients inquiry about the drug you prescribed; even the nurse assistant listening intently to the patients innermost fears and calmly assuring the patient while going about their chores; and, finally, our office medical assistants who listen to all the complaints about our scheduling, fees, and occasionally, our inadequacies—these are just a few members of the health team who make our jobs easier and function more efficiently who are too often ignored or whose roles go unnoticed.

Knute Rockne, the fabled Notre Dame football coach and teacher never failed to teach his players lessons that would prepare them for life. At one time the entire backfield, commonly called "The Four Horsemen," gained the attention of the nation's print and broadcasting media with their football prowess. Very little focus was ever placed on the linemen, affectionately dubbed "The Seven Mules" by Rockne. Eventually, the hoopla surrounding the backfield stars went to their heads. Disturbed by the lack of attention and respect for the linemen, Rockne called the linemen aside one day and ordered them to forget their assignments of blocking and interference. As you can imagine, "The Four Horsemen" were rendered useless and totally ineffective.

So it is with the health profession. We are a team that requires a collective effort for a cohesive and unified front to maintain high quality care. The people who "toil in the trenches," some of them handling the dirty work, often without any semblance of public recognition for the work they perform, make our jobs easier and create the momentum for total patient care. As physicians, most of us recognize these qualities and appreciate the splendid jobs they are doing. At some point during the holiday season, let them know our appreciation and compliment them for their dedication.

On behalf of the Board of Trustees we wish for you and your family a joyous Holiday Season and a prosperous New Year.

**Ballard W. Cassady, M.D.
KMA President**



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A Prospective Randomized Trial of Postoperative Irradiation in Stage I and II Non-Oat Cell Carcinoma of the Lung

A Preliminary Report

Oscar A. Menciondo, M.D., Justine Yoneda, M.D.
Yosh Maruyama, M.D. and Marcus Dillon, M.D.

A prospective randomized trial was initiated in 1974 to evaluate the role of postoperative mediastinal irradiation following surgery for stage I-II non-oat cell lung cancer. This preliminary report concerns 58 patients randomized until May 1979, with a mean follow up of 39 months. Cancer recurrence rates are similar for both treatment groups. Fewer patients are alive free of disease in the irradiated group (10/24-41.7%) than in the surgery only group (21/34-61.8%). Postoperative irradiation was effective in decreasing the incidence of local recurrence (26.5% in the surgery only group vs 8.3% in the irradiated group). Distant metastases were more frequent in the patients receiving irradiation (29.2%) than in those that did not (11.8%). These preliminary results suggest that postoperative irradiation alters the patterns of failure without influencing the survival of patients treated surgically for early stage lung cancer.

THE prognosis of lung cancer patients is still poor. The best cure rates have been those achieved by surgical treatment of early lesions,^{1,2} but unfortunately only about 20% to 40% of the patients are eligible for such a procedure.^{3,4} The presence of tumor in hilar or mediastinal lymph nodes has been long recognized as an indicator of poor prognosis,^{1,5} but even in patients without nodal metastases mortality from recurrent cancer is high.^{1,2,6} Postoperative irradiation could presumably improve the survival of patients treated by surgery if the residual microscopic tumor is still contained in the mediastinum

and remaining hilum. This, however, has not been demonstrated. A randomized trial of postoperative mediastinal irradiation following surgery for non-oat cell lung cancer was initiated at the University of Kentucky Medical Center and Veterans Administration Hospital, Lexington, Kentucky, in 1974. This report concerns 58 patients entered into this protocol until May 1979, with a mean follow up of 39 months.

Key Words: lung cancer, postoperative irradiation, randomized clinical trial.

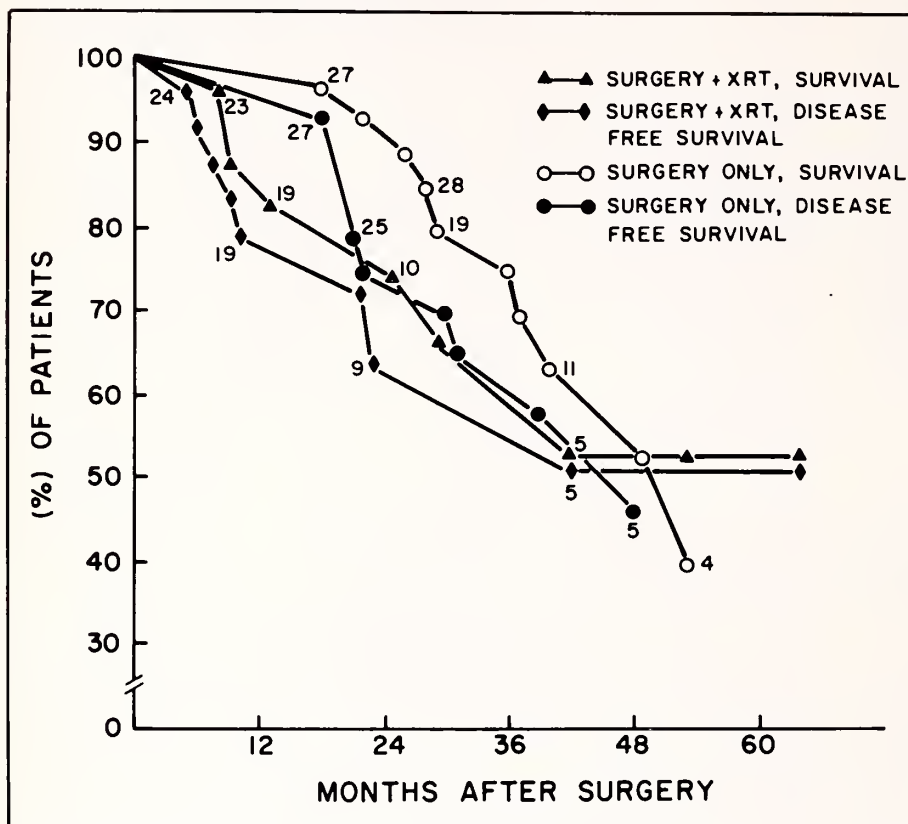


Fig 1: Adjusted actuarial survival and disease free survival rate for stages I ($T_{1-2}N_0$) and II ($T_{1-2}N_1$)

Methods and Materials

Between July 1974 and May 1979, 62 patients with stage I ($T_1-T_2N_0$) or stage II ($T_1-T_2N_1$)* non oat cell lung cancer were randomized to receive postoperative irradiation (28 patients) or no further therapy (34 patients) after surgical resection of the primary tumor. One patient expired and another one developed liver metastases before radiotherapy started, while two patients did not accept therapy as indicated; these four patients were excluded from further analysis. Patients entered into this study met the following requirements:

* T_1 : Tumor 3.0 cm. or less in greatest diameter, surrounded by lung or visceral pleura, without evidence of invasion proximal to a lobar bronchus.

T_2 : Tumor more than 3.0 cm. in greatest diameter, or tumor of any size invading the visceral pleura or with associated atelectasis or obstructive pneumonitis involving less than an entire lung. Proximal extent of tumor at least 2.0 cm. distal to the carina. No pleural effusion.

N_0 : No demonstrable metastasis to regional lymph nodes.

N_1 : Metastasis to lymph nodes in the peribronchial and/or hilar region.

a) non oat cell histology; b) absence of clinically detectable metastases by physical exam, liver function tests, liver, brain and bone scans and other tests as indicated; c) resection margins free of tumor; d) absence of tumor in the mediastinal lymph nodes sampled; e) primary tumor classified as T_1 or T_2 according to the American Joint Committee for Cancer Staging and End-Results Reporting classification.⁷ Informed consent was obtained after the nature of the protocol and the procedures were fully explained. The patients were then randomized according to assignment instructions in sealed envelopes.

Radiotherapy was given either as a split course (2000 rad in five fractions over four to six days, three weeks rest, 2000 rad in five fractions over four to six days, to 16 patients) or as a continuous course (4000 rad in 20 fractions over four weeks to 5400 rad over six weeks to eight patients). Therapy fields were designed to include the mediastinum, both hila and the medial aspect of the supraclavicular areas. Anterior and posterior portals were treated each day for the initial 2000 rad of the split course or 3600 rad of the continuous course, and three fields were used afterwards to

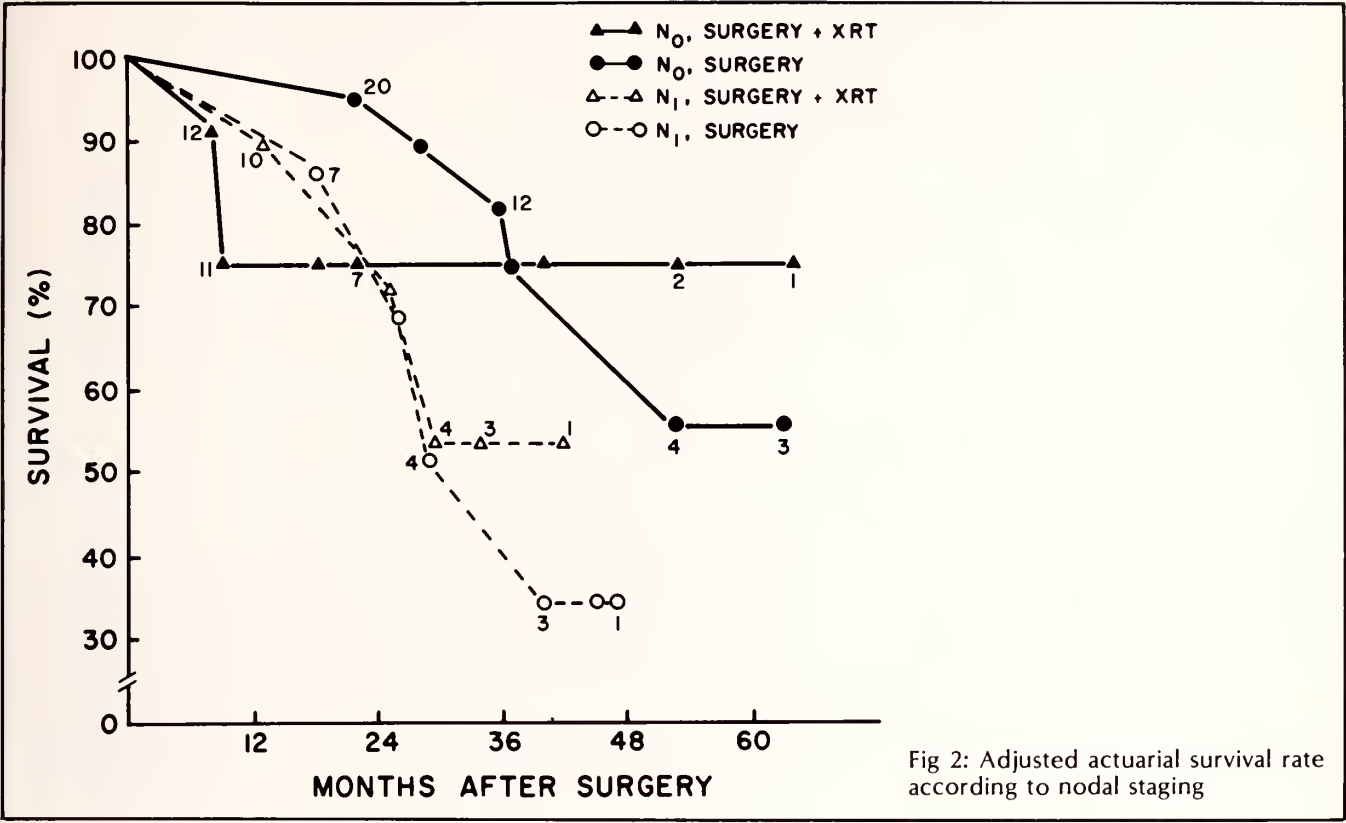


Fig 2: Adjusted actuarial survival rate according to nodal staging

keep the dose to the spinal cord within tolerance limits. Patients were then followed jointly by surgeons and radiotherapists. Patients relapsing were given treatment as deemed appropriate, either radiotherapy, chemotherapy or both.

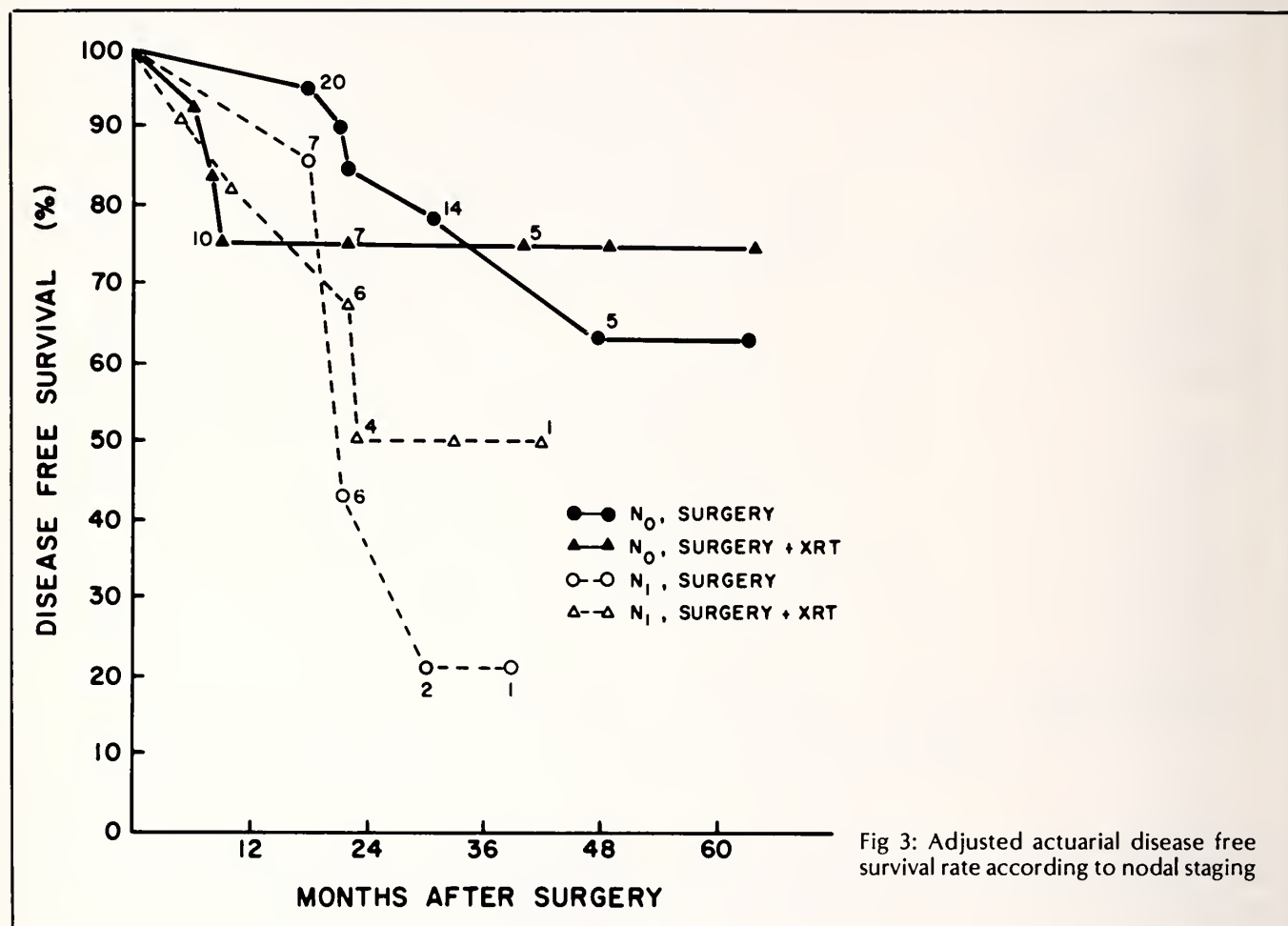
In the group treated by surgery only, four of the 34 patients were female; the mean age of the population was 57.8 years. Seven of the 34 patients had a pneumonectomy, two had segmentectomies and the rest were treated by lobectomies. The postoperative irradiation group consisted of 24 patients, all males, with a mean age of 54.1 years. Three of the patients had pneumonectomies and the remaining 21 had lobectomies. Table I shows the anatomical location of the primary tumors; except for a larger proportion of right upper lobe tumors in the irradiated group, the distribution is comparable in both groups. Histology was comparable in both groups, with approximately half of the tumors being squamous cell carcinomas (Table II). Table III shows the pathological staging, with a larger proportion of N₀ cases in the group treated by surgery only. The mean follow up was 39 months (range 11 to 75 months) for the patients treated by surgery only and 39.5 months (range

16 to 64 months) for those having postoperative irradiation.

Results

As of October 1980, 11/34 patients (32.4%) in the surgery only group, and 8/24 (33.3%) in the irradiated group have had a relapse of their tumor. Fewer patients are alive free of disease in the irradiated group than in the surgery only group (10/24 - 41.7% vs 21/34 - 61.8%) because of the higher incidence of non cancer related deaths among those having radiotherapy (Table IV). No difference in survival or tumor recurrence was found according to the T staging and therefore the breakdown of the groups will be only done according to the nodal status. A similar proportion of the patients without nodal metastases had recurrent cancer regardless of the addition or not of postoperative irradiation. More patients had relapse of tumor in the non irradiated group (75% vs 45.4%) in the N₁ category, although the number of patients in this group is small.

The adjusted actuarial⁸ survival and disease free survival curves for both treatment groups are shown in Figure 1. The survival and disease free



survival curves according to nodal staging are shown in Figure 2 and Figure 3 respectively. For stages I and II combined, survival is similar regardless of the addition of postoperative irradiation or not. Disease free survival closely parallels survival because of the short life expectancy after recurrence. When the groups were broken down by nodal staging, the patients with positive nodes fared equally poorly in the surgery only or surgery plus postoperative irradiation groups. Very few patients survive beyond the two year mark and differences at that point become non significant. In the groups with negative nodes there was an initial sharp drop in survival among the irradiated patients due to early appearance of distant metastases. Survival is similar at three years and the small number of patients surviving and followed beyond that point make differences nonsignificant.

The patterns of failure are shown in Table V. Local recurrences (in the mediastinum or bron-

chial stump) were far more common after surgery only than after surgery and postoperative irradiation. That was the case for both the N₀ and the N₁ categories. Initial failure with distant metastases was more common in the irradiated group (6/24 - 25%) than among patients having surgery only (2/34 - 5.9%), but this difference was only evident for the N₀ category. Four of the six patients in the radiotherapy group who initially failed with distant metastases did so within nine months after treatment. Therefore, it cannot be said that the higher incidence of distant metastases may be due to a longer exposure to the risk of relapse.

Two patients died of intercurrent diseases in the surgery only group, one with superior mesenteric artery thrombosis and one with cancer of the esophagus. The postoperative irradiation group suffered a larger attrition from non cancer related deaths. Two of the six intercurrent deaths were treatment related: one patient died of ra-

Table I
Postoperative Irradiation in Lung Cancer
Location of Primary Tumor

	Treatment Group	
	Surgery Only	Surgery + Irradiation
Right Upper Lobe	16.6%	41.7%
Right Middle Lobe	11.8%	—
Right Lower Lobe	20.6%	12.5%
Left Upper Lobe	35.3%	20.8%
Left Lower Lobe	8.8%	16.7%
Left Mainstem Bronchus	5.9%	8.3%

Table II
Postoperative Irradiation in Lung Cancer
Histology of Primary Tumors

	Treatment Group	
	Surgery Only	Surgery + Irradiation
Squamous Cell Carcinoma	55.9%	45.8%
Adenocarcinoma	29.4%	29.2%
Large-Cell Undifferentiated	11.8%	16.6%
Adenocarcinoma + Squamous Cell Carcinoma	2.9%	4.2%
Adenocarcinoma + Large Cell Undifferentiated	—	4.2%

Table III
Postoperative Irradiation in Lung Cancer
Surgical Staging

Surgery Only 34 Pts				Surgery + Irradiation 24 Pts			
Treatment Group				Treatment Group			
	T ₁	T ₂			T ₁	T ₂	
N ₀	14	12	26	N ₀	4	9	13
N ₁	3	5	8	N ₁	7	4	11
	17	17			11	13	

diation induced pneumonitis and one patient with prior history of angina died of myocardial infarction, which may have been partially precipitated by mediastinal irradiation. The other four deaths among the irradiated patients were due to a cerebrovascular accident in one patient and pneumonia in three.

Discussion

The role of adjuvant postoperative irradiation following surgery with curative aim for early stage lung cancer has not been clearly established. Spjut and Mateo⁹ reported on the autopsy findings of 87 patients treated surgically for lung cancer, 15

of whom died within 30 days after surgery. Almost half of those patients had recurrence or persistence of cancer in the chest, with a large proportion also having distant metastases. The number of cases with persistent disease only in the chest was not stated though. More recently, Matthews et al¹⁰ presented information on autopsy findings in 202 patients who died within 30 days of surgical resection of their lung carcinomas. Among 131 cases with epidermoid carcinoma, 16.5% had persistent disease limited to the bronchial stump, the hilar or mediastinal lymph nodes while only two of 71 cases with other histologies had residual local disease only. Although it is likely that a number of metastatic deposits escaped the eye of the pa-

Table IV
Postoperative Irradiation in Lung Cancer
Patients' Status

	Treatment Group			
	Surgery Only		Surgery + Irradiation	
	$T_{1-2}N_0$	$T_{1-2}N_1$	$T_{1-2}N_0$	$T_{1-2}N_1$
Cancer Recurrence	5/26 (19.2%)	6/8 (75%)	3/13 (23.1%)	5/11 (45.4%)
Intercurrent Deaths	2/26 (7.7%)	0/8	3/13 (23.1%)	3/11 (27.3%)
Alive Free of Disease	19/26 (73.1%)	2/8 (25%)	7/13 (53.8%)	3/11 (27.3%)

thologists, the argument can be made that some patients do initially have residual microscopic tumor in the thoracic cavity that can be encompassed by radiation fields and possibly sterilized.

Patterson¹¹ reported on the results of a randomized trial of postoperative irradiation following pneumonectomy for histologically proven carcinoma. Three year survival rates were not significantly different whether irradiation was given or not regardless of the histological type. The incidence of distant metastases was higher for the group receiving irradiation and that difference was established in the first year after treatment. This study has been criticized because of the lack of information on tumor extent, status of mediastinal nodes and also because the radiation treatment volume was small and not designed to include the entire mediastinum. Patterson acknowledged the fact that the prescribed dose was not as high as it could have been and concluded that "the postoperative procedure has to be regarded as superfluous at the dose levels employed." Rissamen et al¹² reported a 30% rate of tumor sterilization in patients with inoperable lung cancer treated with megavoltage to doses of 4500 to 5500 rad over five to eight weeks. Also, Bloedorn et al¹³ demonstrated a large proportion of sterilization of mediastinal lymph nodes after doses of 4000 to 4500 rad to the entire mediastinum with a 1500 rad boost to the areas of proven gross disease. These two studies, though, deal with areas of gross tumor rather than with microscopic disease, as could be assumed present in patients whose sampled mediastinal nodes are negative.

Sherrah-Davies¹⁴ acknowledged that although the inclusion of a larger mediastinal volume in postoperative irradiation may be necessary, the morbidity may indeed require a reduction of the

total dose delivered and suggested that adjuvant irradiation could be tried when gross mediastinal invasion is not present. Choi et al¹⁵ analyzed retrospectively the experience at the Massachusetts General Hospital. Seventy-eight of their patients were stage II ($T_{1-2}N_1$) and about equally distributed between post-operative irradiation or surgery only. Of the patients with squamous cell carcinoma stage II 54.5% are surviving after postoperative irradiation compared to 36.4% after surgery only. The authors mention that among those patients with adenocarcinoma stage II postoperative irradiation seemed to improve survival. For most patients in this study, radiation doses ranged between 4600 and 5600 rad over 4.6 to 5.6 weeks.

The results of a multi-institutional study were recently reported by Van Houtte et al.¹⁶ Patients with T_1 - T_2N_0 lung cancer were randomized to only surgery or surgery plus 6000 rad mediastinal irradiation. A decrease in local relapse was observed in the irradiated group, but survival was not influenced. On the contrary, irradiation appeared significantly detrimental for the group with T_2 lesions. Also, radiation related morbidity was non negligible (12.7%).

The trial at the University of Kentucky was designed to include patients surgically staged as $T_{1-2}N_{0-1}$, where presumably only microscopic disease would be present in the mediastinum. A dose level of or equivalent to 5200 rad over 5.2 weeks was selected since it was presumably adequate to sterilize areas of microscopic disease. Because of local geographical reasons, most patients were treated with a split course rather than a continuous course. Our results indicate that postoperative irradiation does alter the pattern of failure after curative surgery without influencing patient survival. The incidence of local recurrence was re-

Table V
Postoperative Irradiation in Lung Cancer
Patterns of Initial Failure

	Surgery Only		Surgery + Irradiation	
	T ₁₋₂ N ₀	T ₁₋₂ N ₁	T ₁₋₂ N ₀	T ₁₋₂ N ₁
Local Recurrence* Only	4/26 (15.4%)	3/8 (37.5%)	0/13	1/11 (9.1%)
Local Recurrence + Distant Metastases	1/26 (3.8%)	1/8 (12.5%)	0/13	1/11 (9.1%)
Distant Metastases Only	0/26	2/8 (25%)	3/13 (23.1%)	3/11 (27.3%)
Total Local Recurrences	5/26 (19.2%)	4/8 (50%)	0/13	2/11 (18.2%)

*Bronchial and/or mediastinal recurrence.

duced in the irradiated group (8.3% vs 26.5% in the surgery only group). That was true for the N₀ stage (0/13 vs 4/26) as well as for the N₁ stage (1/11 vs 3/8). That higher doses may improve this result is arguable since the 6000 rad in the European trial reduced local relapses from 18.3% to 5.6%,¹⁶ although further follow up of our patients may eventually show more local relapses in the irradiated group. The decrease in local failures was counter balanced in our patients by an increase in the incidence of distant metastases (11.8% for the surgery only group vs 29.2% for the irradiated group). The difference resides in the N₀ group, where 23.1% of the irradiated patients developed metastases vs 3.8% of those having surgery only. The reason for this unpleasant finding is unclear but the possibility of an alteration of the host response cannot be overlooked. The proportion of N₀ patients without recurrence is similar in both treatment groups (surgery 80.8% vs surgery and radiotherapy 76.9%). Among patients with N₁ disease, there are less recurrences in the irradiated than in the non irradiated group (disease free 54.5% vs 25%) but these groups are small and therefore of relative significance. Another factor contributing to the problem is the morbidity and mortality related to irradiation. One of our patients died of radiation pneumonitis and in another one irradiation may have aggravated a preexisting arteriosclerotic heart disease. This patient did experience more frequent and severe episodes of angina after irradiation and died of a myocardial infarction. If irradiation contributed or not to the development of bacterial pneumonias in three other patients cannot be ascertained.

In conclusion, our data suggests that postoperative irradiation does not improve the survival

of patients with T₁₋₂N₀₋₁ non oat cell lung cancer. If a sub group of patients with adenocarcinoma as suggested by Choi et al¹⁵ could derive some benefit from postoperative irradiation can only be answered by a randomized prospective trial. That patients with N₀ disease do not benefit from radiation has been shown by Van Houtte et al¹⁶ and by our study. Although with small numbers of patients, our preliminary results seem similar for patients with N₁ disease. Further studies in this subgroup are thought necessary to finally answer this question.

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Indications

Cyclacillin has less *in vitro* activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

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Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)

Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*

Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age. Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

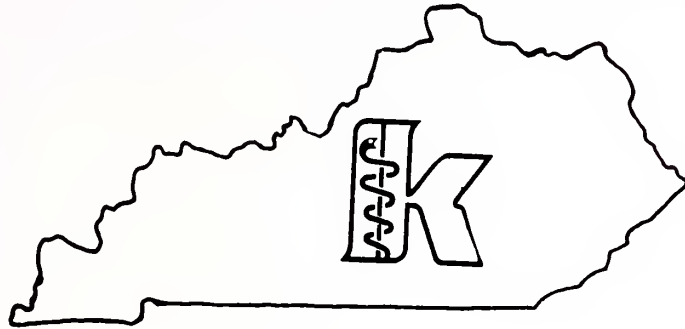
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Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
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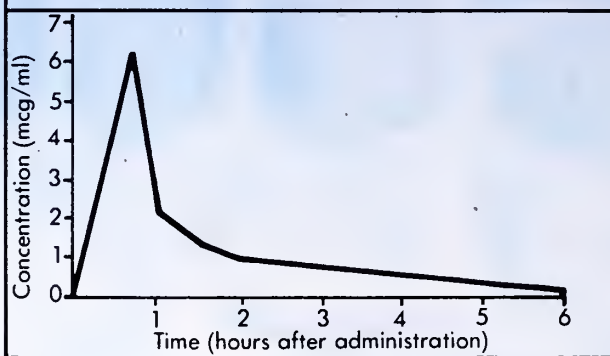
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Typhoid Fever

Julio C. Melo, M.D.

Typhoid fever used to be one of the most important and common of all bacterial diseases. In 1900 the population of the United States was about 76,000,000. That same year there were at least 350,000 cases and 35,379 deaths from this disease. It appears that in the course of a decade about one person in every 20 contracted the disease in this country. The prevalence of the disease has certainly greatly diminished.

In 1856, based on epidemiologic evidence, William Budd suggested that typhoid fever was infectious in nature and that it was transmitted by sewage contaminated water. He also suggested that the human feces were the source of the infectious agent.¹ In 1880, Eberth found the typhoid bacillus in the spleen and mesenteric glands of patients who died of the disease. In 1884, Gaffky cultured the etiologic organism for the first time.¹ Widal in 1896 measured the agglutinating antibodies against the antigens of the typhoid bacillus.²

Typhoid fever is now rare in this country. American travellers and new immigrants are the most common source for introduction of new cases in the United States.³

Microbiology

Salmonellae are aerobic, gram-negative, flaggellated, non-encapsulated, non-sporulating bacilli.¹ The Salmonellae have been classified into three primary species: *Salmonella choleraesuis*, *Salmonella typhi* and *Salmonella enteritis*. *Salmonella choleraesuis* and *Salmonella typhi* each consist of a single serotype. No special medium is needed to culture salmonella from sterile fluid.

Salmonella Antigens and Virulence

Three major antigens are found in *Salmonella typhi*. The "O" (Somatic), the "H" (flagellar) and the "Vi"

antigen. The "H" and "O" antigens are of clinical and microbiologic importance but they are also helpful markers in epidemiologic studies. The "Vi" antigen appears to interfere with the activity of bactericidal antibody and phagocytosis *in vitro* and *in vivo*.⁴ Therefore its presence or absence is correlated with virulence.⁴ Measurement of agglutinating antibodies against the "O" and "H" antigen have been used to make the diagnosis of typhoid fever.⁵ However, some patients with typhoid fever may not have increase in the level of agglutinating antibodies,⁶ treatment with antibiotics may interfere with the antibody response,⁷ and false positive titers may be seen in patients with disorders in which there are immunoglobulin elevations.⁸ It appears therefore that the best way of making the diagnosis of typhoid fever is by culturing the organism.⁷

Epidemiology

The number of cases of typhoid fever have decreased dramatically in the United States. In 1942 there were 5,595 cases of typhoid fever while in 1977 only 398 cases were reported.⁹ Typhoid and nontyphoid fever salmonellosis are very different in their epidemiology. The major reservoir for nontyphoid human salmonellosis is domestic livestock and poultry. The reported cases of nontyphoid salmonellosis increase in late November every year due to the ingestion of turkey during the Thanksgiving holidays. Humans are practically the only reservoir of the typhoid bacillus. Typhoid fever either comes from an asymptomatic carrier or from a patient recovering from infection. In the United States, outbreaks of typhoid fever can be seen when a carrier contaminates the food, or when feces contaminate a drinking water supply.¹⁰

Pathogenesis

Studies by Hornick et al¹¹ in normal volunteers have shown that somewhere between 10^7 - 10^9 organisms were required to produce disease in more than 50% of them.

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Grand Rounds

The gastric pH serves as a mechanism of defense. Patients with gastrectomy or achlorhydria are more susceptible to salmonella infections.^{12,13} During the first four to five days following the ingestion of *Salmonella* bacterial multiplication occurs in the intestinal tract. Following multiplication the organism invades the intestinal mucosa in the distal ileum and perhaps in the cecum and large bowel.¹⁴ The organism then multiplies in the intestinal lymph follicles, and they then spread to mesenteric lymph node, the lymph system and then the systemic circulation, where they can invade practically any organ system. The inflammatory response elicited by typhoid bacillus is different from other *Salmonellosis*. Typhoid organisms elicit a mononuclear inflammatory response, whereas other *Salmonellae* elicit a polymorphonuclear response. Stools of patients with salmonellosis will also reflect this type of cell response.¹⁵

Clinical features

Although classic typhoid fever is caused by *Salmonella typhi*, one could also see a similar picture with practically any other salmonella strain. The length of incubation period seems to be directly related to the number of microorganisms ingested but it varies between one and two weeks. Fever is probably one of the earliest symptoms of the disease, and it raises very slowly over several days. About 10% of patients will have some diarrhea shortly after ingestion of the organisms probably related to proliferation of the bacteria within the gut.⁷ The fever is then followed by a generalized malaise, headache, cough, sore throat and discomfort. The disease is often confused at this time with a viral or influenza like illness. Although this is the most common initial manifestation, the disease can also manifest initially with signs and symptoms suggestive of central nervous system involvement.⁷ By the beginning of the second week of illness the clinical manifestations are those of fever, nausea, vomiting, abdominal tenderness, anorexia and constipation. Although constipation is certainly one of the features of the disease, some series have reported up to 43% incidence of diarrhea in these patients.⁶

Physical findings are usually those of toxicity, mental confusion, delirium, relative bradycardia, rales, foul breath, splenomegaly and abdominal tenderness.⁶ The so called "rose spots" which are small, erythematous papules are seen mainly in the anterior aspect of the trunk. They seem to occur in crops. They are believed to represent cutaneous vasculitis,¹⁶ although the organism has been isolated from these lesions.¹⁷ Rose spots occur in 30-50% of patients with typhoid fever⁷ but they are also seen in patients with other diseases.

Many other signs and symptoms have been associated with typhoid fever including erythema nodosum, alopecia, pleural effusion, prostatitis, epistaxis, pneumonia.^{6,7} The clinical improvement of the untreated patient starts at the beginning of the third week. The defervescence of the fever is gradual.

Complications

Intestinal perforation and hemorrhage are the main complications of typhoid fever. Perforation occurs in about 1-3% of patients.¹⁶ The fatality rate is higher in these individuals. The clinical presentation may be dramatic with abdominal pain, fever, leukocytosis, but it can also develop in a very subtle way. One of the clues in the patient who does not have too many symptoms is the development of leukocytosis.⁷ Hemorrhage has a higher incidence in the patients.⁷ These two complications are more frequently seen during the second and third week of the illness.

Acute cholecystitis may develop in up to 2% of patients.⁶ Pneumonia due to this organism can be seen in up to 8% of patients.⁷ Other less common complications include myocarditis, prostatitis, epididymitis, and immune complex glomerulonephritis.

Relapse is a known complication of typhoid fever. The frequency of relapse is higher in the antibiotic era. Relapse can occur in up to 20% of chloramphenicol treated patients.¹⁸ Other complications like transverse myelitis, endocarditis, osteomyelitis, Guillain-Barre syndrome are not as common.

Hematologic changes are frequently seen in these patients. Anemia is probably the most common abnormality. Leukopenia is usually seen. Thrombocytopenia, disseminated intravascular coagulation can also be seen in the most severe cases. Eosinophilia is not seen in patients with typhoid fever.⁷

Diagnosis

The diagnosis should be suspected in patients with suggestive clinical symptoms who have returned from other parts of the world where typhoid fever is endemic. The diagnosis is made by recovering the organism from blood, stools or other body fluids. Blood cultures are usually positive in 80% of patients during the second week of illness. Bone marrow cultures are useful in patients who have received prior antibiotic therapy.¹⁷ The Widal reaction (agglutinating antibodies against the O or H antigen of *Salmonella typhi*) has been used in the past to make the diagnosis. Due to the lack of production of antibodies in some patients, the cross-reaction with some other salmonella and gram negative enteric rods and the presence of positive titers in patients with chronic liver diseases, the diagnosis of ty-

Grand Rounds

phoid fever should not be made on the basis of the agglutinating reactions.⁷

Carrier State

The incidence of the carrier state as defined as positive stool cultures one year or more after the acute episode is around 3%.¹⁹ These persons are a major source for outbreaks of typhoid fever.

Antibiotic Treatment

Antimicrobial therapy has markedly decreased the morbidity and mortality of patients with typhoid fever.

Salmonella typhi is sensitive *in vitro* to many different antibiotics including cephalosporins, aminoglycosides,²⁰ tetracyclines²¹ and other antibiotics. Despite the *in vitro* sensitivities these antibiotics are not effective *in vivo*.²⁰ *In vitro* resistance is usually correlated with *in vivo* resistance. Chloramphenicol was found to be effective in the treatment of typhoid fever in 1948 by Woodward et al.²² Ampicillin,²³ amoxycillin²⁴ and the fixed-drug combination TMP-SMX²⁵ have also been shown to be clinically effective. Chloramphenicol has been considered to be the drug of choice for the treatment of typhoid fever for many years. However, there is now good evidence that amoxycillin is at least as effective if not better than chloramphenicol in the treatment of typhoid fever.^{24,26,27,28} Some experts feel that at least in the United States the drug of choice for typhoid should be ampicillin or amoxycillin.¹⁶ In other parts of the world chloramphenicol is still considered the drug of choice for chloramphenicol sensitive strains.

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WB, Nitzkin JL, et al: Epidemiology of *Salmonella typhi* infection in a migrant labor camp in Dade County, Florida. *J Infect Dis* 130:335-342, 1974. 11. Hornick RB, Greisman SE, Woodward TE, Dupont HL, et al: Typhoid fever: pathogenesis and immunologic control. *N Engl J Med* 283:686-691, 1970. 12. Hook EW: *Salmonellosis: Certain factors influencing the interaction of Salmonella and the human host*. *Bull NY Acad Med* 37:499-512, 1961. 13. Nordbring F: Contraction of *Salmonella* gastroenteritis following previous operations in the stomach. *Acta Med Scandinav* 171:783-790, 1962. 14. Carter PB, Collins FM: The route of enteric infection in normal mice. *J Exp Med* 139:1189-1203, 1974. 15. Harris JC, Dupont HL, Hornick RB: Fecal leukocytes in diarrheal illness. *Ann Int Med* 76:697-703, 1972. 16. Dupont HL and Pickening LK: *Infections of the Gastrointestinal Tract. Microbiology, pathology and clinical features*. (Topics in Infectious Diseases). Plenum Publishing Corporation. 1980, p. 83-128. 17. Gilman RH, Termini M, Levine MM, Hernandez-Mendoza P, Hornick RB: Relative efficacy of blood, urine, rectal swab, bone-marrow and rose-spot cultures for recovery of *Salmonella typhi* in typhoid fever. *Lancet* 1:1211-1213, 1975. 18. Woodward TE, Smael JE: Management of typhoid fever and its complications. *Ann Int Med* 60:144-157, 1964. 19. Thomson S: The number of bacilli harboured by enteric carriers. *J Hyg* 52:67-70, 1954. 20. Dawkins AT, Hornick RB: Evaluation of antibiotics in a typhoid model. *Antimicrob Agents Chemother* 6:6-10, 1966. 21. Woodward TE, Smael JE, Parker RT, Wissemann CL: Treatment of typhoid fever with antibiotics. *Ann NY Acad Sci* 55:1043-1055, 1952. 22. Woodward TE, Smael JE, Ley HL, et al: Preliminary report on the beneficial effect of chloromycetin in the treatment of typhoid fever. *Ann Intern Med* 29:131-134, 1948. 23. Kaye D, Rocha H, Eyckmans L, et al: Comparison of parenteral chloramphenicol in the treatment of typhoid fever. *Annals New York Acad Sci* 62:423-429, 1968. 24. Scragg JN, Rubidge CJ: Amoxicillin in the treatment of typhoid fever in children. *The Amer J Trop Med Hyg* 24:860-865, 1975. 25. Stamps TJ, Wicks ACB: Trimethoprim-sulphamethoxazole (Bactrim) in the treatment of typhoid fever. *S Afr Med J* 46:652-655, 1972. 26. Scragg JN: Further experience with amoxicillin in typhoid fever in children. *B Med J* 2:1031-1033, 1976. 27. Abengowe CU: Comparative clinical trial of amoxicillin and chloramphenicol in the treatment of typhoid in adults. *J Int Med Res* 7:247-252, 1979. 28. Pillay N, Adams EB, North-Coombes D: Comparative trial of amoxicillin and chloramphenicol in the treatment of typhoid fever in adults. *Lancet* 1:7930-7931, 1975.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary
Consult the package literature for prescribing information.

Indications and Usage: Cefaclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefaclor.

Contraindication: Cefaclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g. pressor amines, antihistamines, or corticosteroids. Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in fetuses given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefaclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefaclor.⁷

Cefaclor®

cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below. *Gastrointestinal* symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[1000008]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefaclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630.

100061

ACCIDENTAL HYPOTHERMIA—ADVANCED LIFE SUPPORT

Daniel F. Danzl, M.D., Salvator Vicario, M.D. and Donald M. Thomas, M.D.

Hypothermia is defined as a core temperature below 35°C (95°F). Accidental hypothermia occurs commonly in Kentucky, and 135 cases were recently reported here.¹

In urban settings, many factors contribute to the development of hypothermia. The patient may have accentuated heat loss from exposure, erythrodermas or ethanol induced vasodilatation. Decreased heat production is common with malnutrition, endocrinologic insufficiency, or at either age extreme. Lastly, thermoregulation may be altered by structural or pharmacological CNS impairment.²

Unique pathophysiologic factors must be considered to successfully treat hypothermia. When first examined, the patient's airway and presence of respirations are assessed. Since CO₂ production drops 50% for each 8°C drop in temperature, the respiratory minute volume will be quite low. Patients with zero respirations for two minutes should be initially ventilated at half normothermic rates unless carbogen (95% O₂, 5% CO₂) is available. Induced hypocapnia exacerbates ventricular irritability.

Cold patients are vasoconstricted and bradycardic. Thus palpable pulses are few and weak. If no Doppler^R is available, always assume perfusion exists if the patient has any spontaneous respirations or motion (*eg* fine shivering). Iatrogenic ventricular fibrillation is easily precipitated with closed chest compressions of cold hearts. If there is no evidence of perfusion, or a monitor documents ventricular fibrillation or asystole, initiate compressions at half normothermic rates. When the core temperature is below 30°C (86°F) only one attempt to defibrillate at 2 wsec/kg should be made. It is rarely successful before the core temperature is elevated.

Treat acid-base imbalance only after correcting arterial blood gases for temperature. Ignore all atrial arrhythmias. Bretylium tosylate appears to be the most effective drug for ventricular arrhythmias. They are commonly precipitated by patient jostling, abrupt acid-base changes, or incorrect rewarming technique. Lidocaine has minimal effects in hypothermia, and procainamide is contraindicated. Avoid any pharmacological manipulation of a spontaneous pulse, blood pressure, or respiratory rate.

Treatment choice is based on the degree of hypothermia, presence of underlying or precipitating factors, and duration of exposure. Passive external rewarming minimizes heat loss with insulating blankets. Patients with mild chronically induced hypothermia (95-90°F) are the best candidates.

Active rewarming is mandatory below 86°F (30°C). Humans at this temperature become poikilothermic. Also any patients with factors causing insufficient or ineffective thermogenesis need exogenous heat. Glycogen depletion from exertion or shivering is common. Central nervous system (lesion, trauma) or pharmacologic induction of vasodilatation (phenothiazines, tricyclic anti-depressants, barbiturates, benzodiazepines) will require active rewarming.⁴

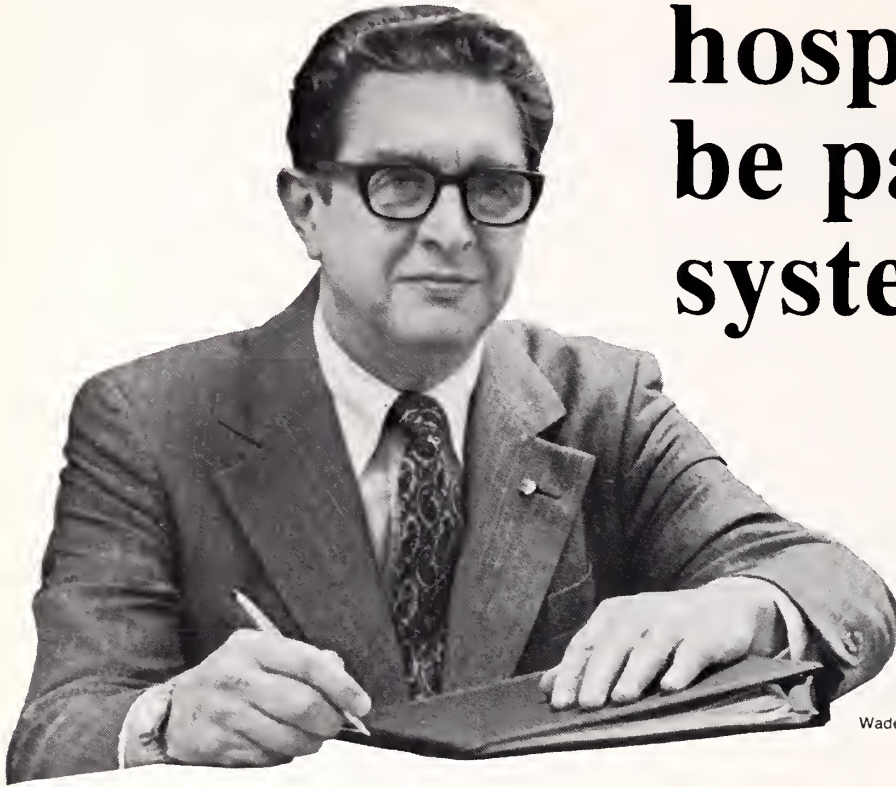
Active external rewarming should be limited to the patient's trunk. Optimal patients are young, healthy, and acutely hypothermic as from immersion. Heating the extremities in chronic hypothermia extinguishes peripheral vasoconstriction. This allows the sudden central return of cold hyperkalemic acidotic blood to a depressed cardiovascular system. As a result, rewarming collapse and a further drop in temperature termed "core temperature afterdrop" occurs.

Inhalation of heated humidified oxygen is simple, effective, and only requires readily available equipment. It currently appears to be the method of choice. Active core rewarming by hemodialysis or mediastinal irrigation should be reserved for patients with no cardiac activity. Peritoneal dialysis is most useful in combination with other techniques in patients in cardiovascular collapse.

Successful treatment of hypothermia requires recognition of its variable presentation, unique differences from normothermia, and factors which necessitate active rewarming.

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* Twenty-nine percent of the nation's general community hospitals were in centrally managed multi-hospital systems in 1980. And this number is multiplying rapidly. (April 1981 issue, *Modern Healthcare*)

EDITORIAL

A recent article in the Archives of Internal Medicine describes two cases of acellular bacterial meningitis and then reviews retrospectively 50 consecutive meningitis cases which were also acellular in their initial presentation. I saw a similar case in 1963. A 17-year-old female presented with fever and delirium, but a supple neck. Spinal fluid was clear with no cells and no organisms on gram stain. Because of her clinical appearance and a peripheral leukocytosis, she was started on IV penicillin. Eighteen hours later, she had a stiff neck and on repeat tap had turbid fluid containing 6,000 white blood cells all polys. The initial CSF had been incubated overnight. It was restained and was loaded with gram negative diplococci which ultimately were proven to be *Neisseria Meningitis*. This feature of *Neisseria Meningitis* is mentioned in articles and case reports over the years, but has never been emphasized.

I think that this sort of experience happens to all of us. We observe an unusual clinical phenomenon, but we are too busy to record it or we don't trust our own powers of observation and it is soon forgotten. The purpose of this journal, and of any medical journal, is to record the observations of clinicians at the bedside or in the laboratory. No observation is worthless. No paper is a wasted effort. Any puzzling clinical problem is just as much a problem for all the readers, the experts included. Do not be reluctant to record observations and send them in—here or elsewhere. The medical literature needs good clinical observations, clearly recorded and thoughtfully evaluated.

Paul C. Grider, M.D.

References Fishbein D B, Palmer D L, Porter K M, Reed W P, Bacterial Meningitis in the Absence of CSF Pleocytosis, *Arch Int Med* 1981; 141: 1369-1372.

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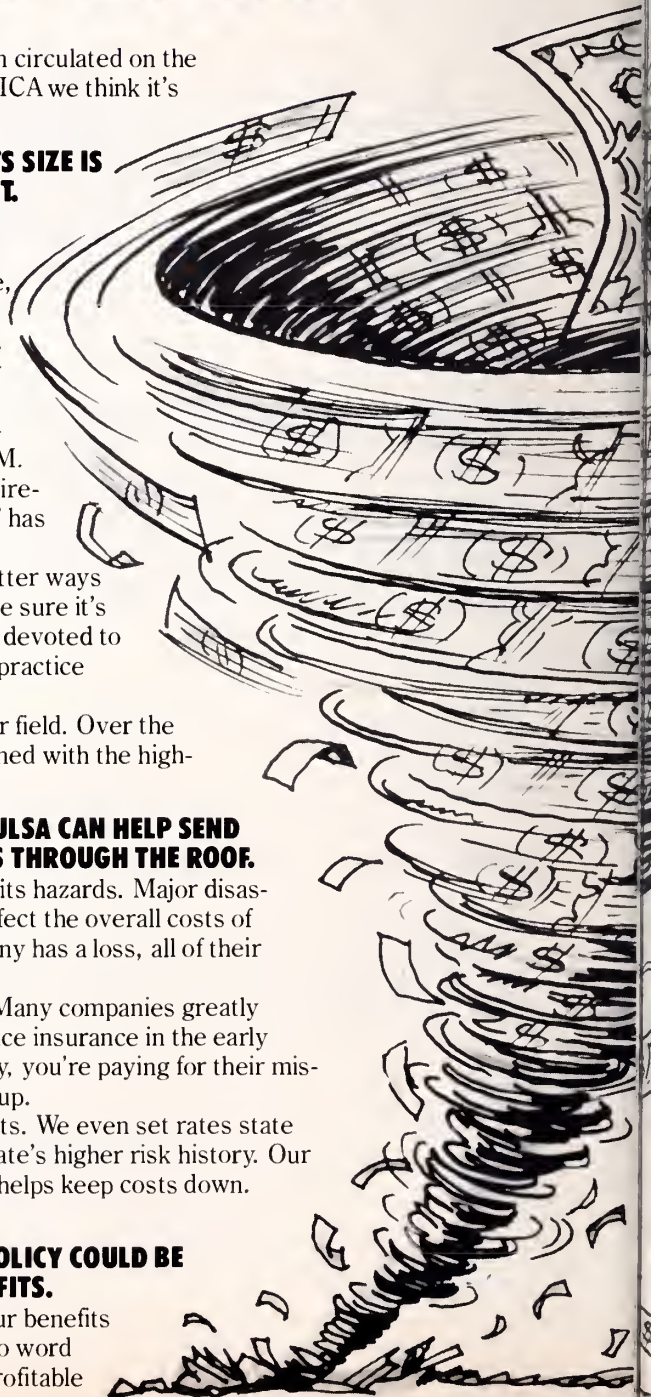
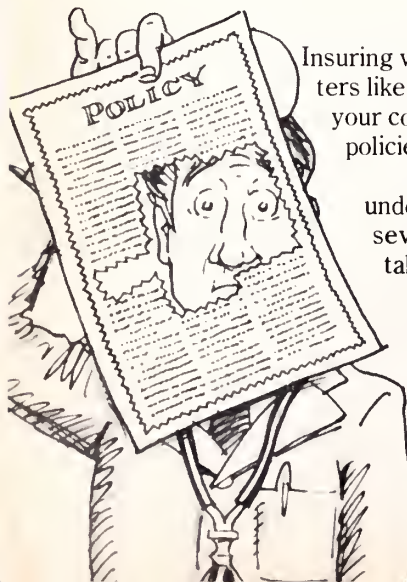
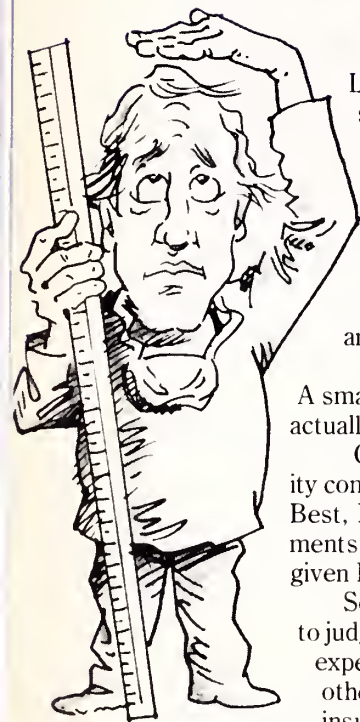
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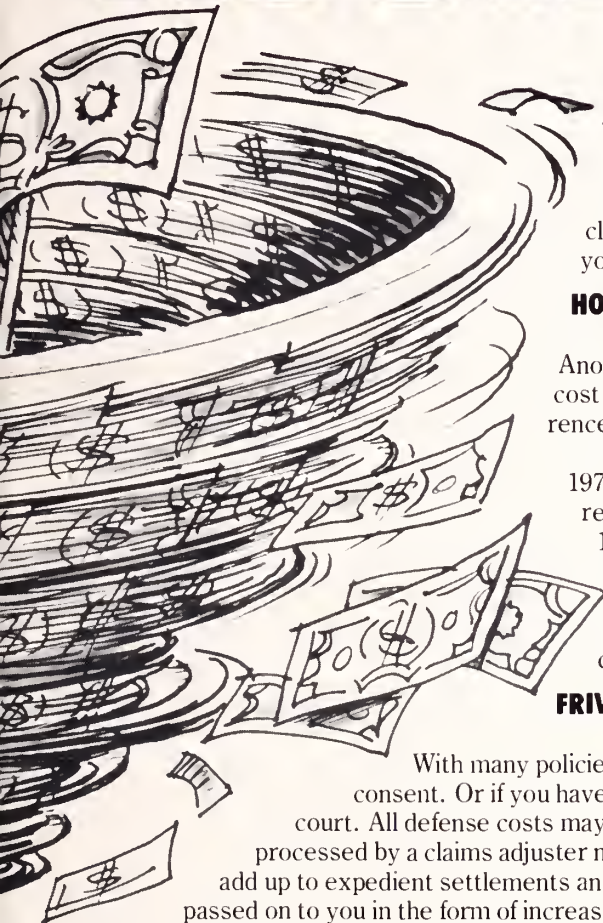
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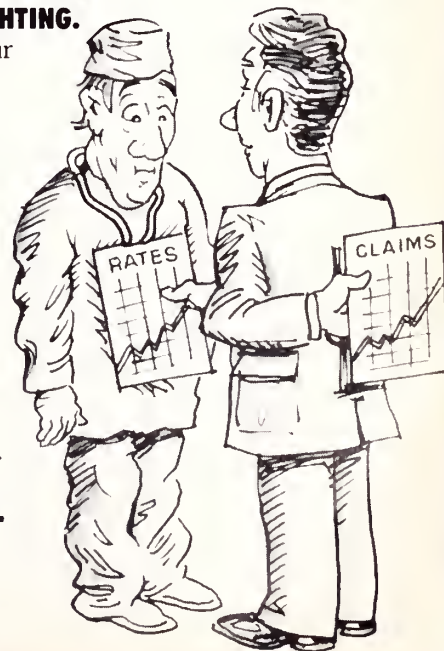
With an 'occurrence-form' policy in say 1979, you're always insured for claims related to that year. Even if a claim is made in 1999. With a 'claims-made' policy coverage expires completely if you fail to renew. To keep coverage after retirement you may have to pay an exorbitant fee set by your company and years of inflation. And the limited coverage it buys you is all you have to cover your entire career.

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William C. Gardner, Madisonville

Donald Godwin, Henderson

Joseph Rogers Griffitt, Nicholasville

Frederick Carl Hauck, Owensboro

John P. Hill, Jr., Somerset

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Duncan G. Johnson, Owensboro

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Deepak Nagar, Louisville

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Authur L. Robertshaw, Paducah

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Edwin P. Solomon, Jr., Louisville

Harvey B. Stone, Hopkinsville

Beverly T. Towery, Louisville

Esther C. Wallner, Louisville

John Thomas Walsh, LaGrange

Abraham Wikler, Lexington

Hugh C. Williams, Louisville

George H. Zwick, Dayton

List of names of deceased physicians available to The Journal as of October 15, 1981

Requiem

Under the wide and starry sky
Dig the grave and let me lie:
Glad did I live and gladly die,
And I laid me down with a will.

This be the verse you grave for me:
Here he lies where he longed to be;
Home is the sailor, home from sea,
And the hunter home from the
hill. (1884)

Robert Louis Stevenson

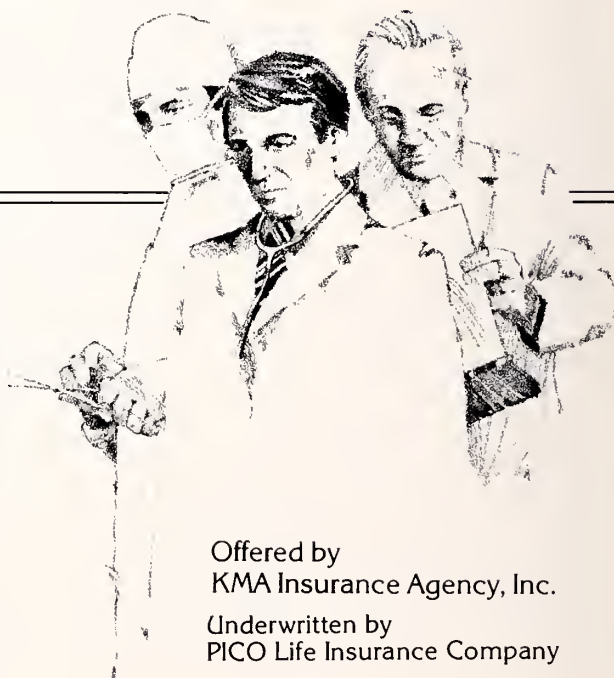
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General Urology

D.R. Smith, 10th Edition, Lange Medical Publications, 1981, 598 pages

This triennial publication surveys urological medicine in a review forum. Very little surgical technique is discussed nor will the spectrum of operative urology be demonstrated. Rather this book is for the physician and student who wish to be founded in urology and urogenital anatomy.

Multi-authored with leading academic men discoursing their territory, this book is a montage of information from basic anatomy to function and even the relationship to the psyche. Reproduction of numerous radiological material is excellent in general, although the CT scans are blurred and some of the urethrograms are dark. Imperative to understanding urogenital disease is complete schooling in the anatomy and embryology of this region. Precise, nicely sized but meagerly labeled illustrations are very useful. History taking is discussed in a paternal way, especially in view of the subtlety of urological symptoms. From this point an anatomic division is used to organize tumors, infections and disordered function of the urogenital system. This method guarantees some duplication, but completeness. Despite different authorship, little significant repetition needs to be tolerated.

Physiology is intermingled in a constructive fashion, especially with the excellent presentations on stones, renal hypertension, and andrology.

Bibliographies are given for each chapter, are up to date and distilled for the most part of obscure research material. The suggested reviews of specific subjects are readily obtainable and are the basic works in each field.

Undertaking a review of urology with this book is not unpleasant and quite enlightening. For less than \$20 and a week of part-time work, the reader will be educationally refreshed.

Harper's Review of Biochemistry

David W. Martin, Jr., M.D., Peter A. Mayes, PhD, DSc, Victor W. Rodwell, PhD, Lange Medical Publications, 1981, 614 pages

The recent publication of the Review of Biochemistry perpetuates the long tradition of having a concise reference to this basic science accessible to the medical profession and students. Pushing 600 pages of text and 27 of index, this book is no simple summary. To the contrary its boundaries encompass the entire field of biochemistry and annex segments of cell biology.

Initially the chemistry of water, amino acids and proteins is discussed. On this foundation critical enzymes, their regulation and energy requirements, are completely explained. Generous use of illustrations, clearly labeled and footnoted, improve one's chances of understanding the material. Nevertheless without bygone years of basic chemistry, a reader will be helpless in these unforgiving complicated sections. As usual the citric acid cycle is covered with the fleeting hope that finally it can be committed to memory.

More germane to medicine are the succeeding chapters on vitamins, oil and water soluble, carbohydrates, lipids, fatty and amino acids. Such basic components of the biological chemistry system are thus well covered and adequately given their due.

Interspersed are several sections dealing with more complex substances—porphyrins, hemoglobin, nucleic acids and the hormones. The transition of these parts is readily facilitated again by excellent

Book Reviews


illustrations and diagrams. The use of photomicrographs is both unnecessary and demeaning since their quality is only fair, especially compared to their counterpart drawings.

Respiratory, gastrointestinal, endocrine, renal and neurochemistries are each granted fairly involved chapters, richly pictured and tabled. Probably these chapters are compensation to the medical men who co-author a book mainly covering chemistry.

Throughout the book significant terms are highlighted with bold print, a practice useful to the reader searching for what information he requires or for quick reading.

Many terms are initial abbreviated, which shortens the text and facilitates recall.

Modest pricing and a historic anti-inflationary minimal increase make this book a good first purchase or a follow-up to its predecessors.



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LETTERS TO THE EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the *Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

To The Editor:

Do You Know How?

It does not seem that a week passes anymore that we do not see somewhere in our newspapers that someone has received an organ transplant; kidney transplant, heart transplant, corneal transplant, etc. and the list continues to grow. We now are transplanting about 25 different organs and tissues with more and more success every year. Organ procurement banks have been established in every state within the continental United States. The administrative and technical staffs of these tissue banks are working diligently to spread the message to John Q. Public about organ donation and the literal gifts of life and sight that can be given to thousands of patients on dialysis and corneal graft waiting lists.

Major tissue banks are located within large metropolitan areas for strategical and logistical reasons. Most states have medical examiner's or coroner's laws which allow eye banks to retrieve corneal eye tissue from autopsied cadavers under their jurisdiction. However, the number of corneal tissues obtained in this fashion is still minimal. Corneas are sometimes not acceptable for transplant because of the interval between death and enucleation, insufficient medical history or cause of death.

Tissue banks still rely heavily on the altruistic feelings of persons who have either pledged their organs and tissues prior to death or those same feelings of the next of kin.

The projects undertaken by Lions Clubs throughout the world primarily support sight conservation and campaign drives to encourage people to pledge their eyes for research and transplantation. Through the efforts of this dedicated group of individuals and tissue banks, people are becoming more aware of these precious gifts they have to offer their fellowman. Since the Kentucky Lions Eye Bank—University of Kentucky began in January 1981, the number of people now

participating in organ donor pledge programs has increased over 600%. What is becoming so alarming is the fact that when an organ donor becomes available in a rural area or hospital no one knows how to perform an enucleation properly or how to arrange transportation of the tissue to the nearest tissue bank. In some instances eye banks have been refused by an area ophthalmologist called on to do an enucleation because they did not have the time. This is indeed regrettable when you consider the size of the waiting list of blind patients in need of corneas to see again.

The enucleation is a simple sterile procedure which requires 15 minutes to perform. Any physician, nurse, or technician would be qualified to enucleate eye tissue, and arrangements can be made with any State Police post to transport the tissue to an Eye Bank.

The following enucleation procedure has been adopted by the Eye Bank Association of America and is recommended for retrieval of donor eye tissue.

A. Equipment:

1. Sterile enucleation kit
 - a. Tissue forceps
 - b. Eye lid speculum
 - c. Stevens scissors, blunt end
 - d. Enucleation scissors, medium curve
 - e. Hemostat, curved
 - f. Eye muscle hook
 - g. Sterile barrier
2. Alcohol swabs or betadine swabs
3. 1 bottle Neosporin liquid, 10cc
4. Styrofoam container with 2 glass eye bottles with cages and pins
5. Consent forms
6. Donor information form
7. Sterile disposable surgeon's gloves

B. Procedure: (STERILE TECHNIQUE MUST BE USED IN THE REMOVAL OF EYES)

1. Before donning sterile gloves:
 - a. Close lids and cleanse the area around the eyes with alcohol or betadine sponges making sure no cleanser comes in contact with the eye.
 - b. Place the sterile enucleation kit near the head of the cadaver and open the wrap. Open the kit taking care not to contaminate the inside.
2. Scrub and don sterile gloves:
 - a. Remove the sterile barrier placing it over the head while exposing the eye. From now on avoid reaching over the sterile fields.
 - b. Lift the upper lid slightly and slip one blade of the speculum beneath it. Repeat for the lower lid.
 - c. Grasp the conjunctiva with the tissue forceps just above the superior cornea and cut it with the Stevens scissors.
 - d. Insert the closed Stevens scissors into the oblique quadrants and spread. This maneuver separates the tissue from the eye ball and makes removal easier. By going into the oblique quadrants, traumatizing the recti muscles is prevented.
 - e. Six muscles must be cut in order to remove the eye. Slide the muscle hook into the inferior temporal quadrant and swing toward the inferior rectus muscle and cut with the Stevens scissors. Repeat this procedure for the superior rectus and lateral rectus. After hooking the medial rectus muscle, clamp a hemostat on it near its insertion on the eye ball. Cut the muscle on the side of the hemostat distal to the eye. This leaves the hemostat attached to a stub of muscle inserted on the eye providing a "handle" on the eye ball allowing control and manipulation of the globe.
 - f. Use the hemostat attached to the muscle stub to lift the eye and pull it temporally. Insert the enucleation scissors behind the eye and cut the optic nerve while pulling up on the eye and pushing the scissors towards the back of the orbit.
 - g. Lift the eye from the socket, cutting the remaining fat and fascia and any remaining muscles. Usually there is little or no bleeding in the orbit and it remains dry. If there is bleeding, tamponade it with 2 x 2 gauze.

- h. Place the eye in the cage, cornea up and insert the optic nerve stub into the hole at the bottom of the cage. A sterile pin goes through the nerve to prevent the eye from dislodging.
- i. Place the cage in the bottle and pour 1/2 the bottle of Neosporin over the cornea. DO NOT IMMERSE THE EYE. Hold Neosporin bottle with sterile gauze. Apply the top of the bottle, holding it also with sterile gauze.
- j. Repeat procedure for the other eye.
- k. Gauze or cotton **must** be placed in the orbit following enucleation and the lids **closed**.
- l. Place the eye jars in the styrofoam container and pack in WET ice. Check permission and donor information forms. Be sure they are complete and accurate. Proceed with transportation to eye bank.

Most Lions Clubs would be willing to donate the equipment needed for the enucleation trays.

If the donor expires in a hospital, information regarding the cause of death or any related pathology should be forwarded to the Eye Bank for review by the surgeon who will be doing the surgical transplant. The following contraindications to use of corneal tissue for transplant are a helpful guide in making a proper determination as to the tissues' suitability for transplant surgery.

1. Systemic Contraindications

A. Absolute

1. Death of unknown causes
2. Septicemia
3. Hepatitis
4. Central nervous system diseases of unknown etiology
5. Blast form leukemia
6. Hodgkin's disease
7. Lymphosarcoma
8. Congenital rubella
9. Subacute sclerosing panencephalitis
10. Subacute encephalitis, cytomegalovirus brain infection
11. Progressive multifocal leukoencephalopathy
12. Reye's Syndrome
13. Rabies
14. Creutzfeldt-Jakob disease

B. Requiring Caution

1. Multiple sclerosis
2. Parkinson's disease
3. Amyotrophic lateral sclerosis

Letters

4. Jaundice, r/o hepatitis
5. Chronic lymphocytic leukemia
6. Diabetes
7. Syphilis

II. Ocular Contraindications

A. Absolute

1. Retinoblastoma
2. Conjunctivitis
3. Iritis
4. Glaucoma
5. Corneal Disease
6. Malignant tumors of the anterior segment

B. Requiring Caution

1. Surgically induced eye abnormality, e.g. aphakia

Any further questions regarding organ or tissue donation may be directed to the nearest eye or tissue bank in your area.

James R. Martin
Kentucky Lions Bank
University of Kentucky

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for a

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AUXILIARY

**When Health Is Absent
Wisdom Cannot Reveal Itself, Art
Cannot Become Manifest, Strength
Cannot be Exerted, Wealth
Becomes Useless, And Reason
Is Powerless.
Herophilus
Circa 300 B.C.**

The health and well-being of all remain the chief concern of physicians, as well as Auxilians. In keeping with tradition, the Auxiliary potential is displayed through voluntarism, sharing talents and expertise to benefit others in need. Auxilians have the special ability to lead others in matters relating to health since we have channels for obtaining information, identifying existing needs, and helping to motivate others to action. We are privileged to be partners in organized medicine, safeguarding the nation's health through educational programs and projects promoting preventive medicine.

We are involved in major community health programs. Our "Shape Up For Life" campaign made an impact the first two years of initiating programs to help people improve their physical fitness and nutrition. This year emphasis is on mental health, and the management of stress. Many county auxiliaries are highlighting programs on stress and developing techniques for coping. Other health related endeavors include CPR, Infant Child Passenger Safety, Child and Spouse Abuse, Safety on Streets, Health Education in Schools—use of Comprehensive Health Education Curriculum, Drug Awareness, Health Fairs, Vial of Life and Screening Programs. We are also working with a Pediatric Orientation problem—to help alleviate fears of children entering the hospital for medical or surgical treatment with puppet shows and slide presentations and a Ronald McDonald House—a home away from home where families from all over Kentucky can stay while their children are receiving treatment for chronic illness.

These and many more programs represent a positive effort, and will create a better image for medicine in our communities. Our voluntary efforts will continue as long as there are needs to be met. As in the past we will strive to meet our communities needs sharing programs and projects, and improving the total health of all concerned. Our health is our wealth.

Mrs. John Noonan
AKMA President

Highlights of the 1981

Officers

Dwight L. Blackburn, M.D., Berea, and Sam D. Weakley, M.D., Louisville, are the newly elected KMA President-Elect and Vice President respectively.

The House of Delegates elected the two new officers at this year's Annual Meeting of the Kentucky Medical Association.

Doctor Blackburn, a family practitioner in Berea, was elected to two consecutive terms as Trustee of the 11th Trustee District and has served as Chairman of the Board of Trustees since 1979. He also serves as a member of the Board of Directors of the Kentucky Medical Insurance Company. Doctor Blackburn is a graduate of the University of Louisville School of Medicine. He

is past president of the Madison County Medical Society and serves on the staffs of Berea Hospital and Pattie A. Clay Hospital in Richmond.

Vice President Sam D. Weakley, M.D., a Louisville surgeon and Professor of Surgery at the University of Louisville, is a member of the KMA Judicial Council, KMA Legislative Committee and the KEMPAC Board. He is a 1950 graduate of the University of Louisville School of Medicine and has been in the private practice of surgery in Louisville since 1955.

S. Randolph Scheen, M.D., Louisville dermatologist, was elected to his third term as Secretary-Treasurer. Doctor Scheen is Assistant Clinical Professor at the University of Louisville and the University of Kentucky and is a member of the



From left to right: Past President Frank R. Pitzer, M.D.; Ballard W. Cassady, M.D., KMA President; President-Elect, Dwight L. Blackburn, M.D., and Secretary-Treasurer, S. Randolph Scheen, M.D.

ASSOCIATION NEWS

KMA Annual Meeting

KMA Judicial Council, the Budget Committee and the Quick Action Committee.

Richard F. Hench, M.D. was elected Chairman of the Board of Trustees for the 1981-82 Associational year. Doctor Hench is an Internist in a group practice in Lexington. He served as Alternate Trustee for the 10th district from 1974-1976 and was elected 10th District Trustee in 1978 to fill the unexpired term of J. B. Holloway, Jr. Doctor Hench is a 1956 graduate of Temple University School of Medicine.

David B. Stevens, M.D., Lexington and Fred C. Rainey, M.D., Elizabethtown were re-elected as Delegates to the AMA. Lee C. Hess, M.D., Florence and Wally O. Montgomery, M.D., Paducah, were re-elected as Alternate Delegates to the AMA.

Newly elected members of the KMA Board of Trustees are Bob M. DeWeese, M.D., Louisville, Fifth District; Nelson B. Rue, M.D., Bowling Green, Sixth District; Don E. Cloys, M.D., Richmond, Eleventh District. New Alternate Trustees are L. Dean Canan, M.D., Louisville, Fifth District; J. Michael Pulliam, M.D., Franklin, Sixth District; Clifford Kerby, M.D., Berea, Eleventh District.



Doctor Blackburn makes his acceptance speech after being elected President-Elect for the 1981-82 Association year.

President's Luncheon

During the President's Luncheon, Glenn U. Dorroh, M.D., Lexington, received the Distinguished Service Award for his accomplishments in the field of community health and for a notable lifetime career devoted to the medical profession and his patients.

Doctor Dorroh is currently a KMA Delegate from Fayette County, Chairman of the KMA Rules Committee, a member of the McDowell House Board of Managers, President of the Fayette County Medical Society Foundation and Emeritus member of the Fayette County Board of Health.

Guest speaker at the President's Luncheon was Lieutenant Governor Martha Layne Collins. In her presentation, Governor Collins urged the profession to work with government in a team effort to attack mutual challenges.

She acknowledged the enormous contributions to the state made by physicians and stressed the fact that adequate health care is a major concern to the people of Kentucky.



Lieutenant Governor Martha Layne Collins was guest speaker during the President's Luncheon, Wednesday, September 23.

Highlights of the Annual Meeting

On September 21, during the first session of the House of Delegates, awards were presented to William M. Christopherson, M.D., Louisville, distinguished Professor of Pathology at U of L and Peter P. Bosomworth, M.D., Vice President, U of K, Lexington for Educational Achievement. The award is presented to give recognition to those who have made a significant contribution in medical or medically related education in the area of research, clinical application of medical practice and/or patient education.

W. Grady Stumbo, M.D., Secretary for the Department for Human Resources, made a brief presentation to the House and outlined some of the financial difficulties faced by the state, discussed their effect on the future operation of state programs, and called on physicians to continue their traditional role of service.

Mrs. Barbara Cox, AKMA Immediate Past President, presented checks to the two medical schools on behalf of the Auxiliary to KMA from the AMA's Education and Research Foundation. Auxiliaries across the country contribute annually to this Fund, which is then proportionally returned to medical schools for educational purposes. A check in the amount of \$8,866.91 was presented to Peter P. Bosomworth, M.D., Vice President, College of Medicine, University of Kentucky for UK, and to Donald Kmetz, M.D., Acting Dean of the University of Louisville School of Medicine, for U of L, in the amount of \$16,152.

Remarks were also made by Frank R. Pitzer, M.D., outgoing President; Mrs. Cox, as President of the Auxiliary; Ballard W. Cassady, M.D., as President-Elect; Dwight L. Blackburn, M.D., Chairman of the Board of Trustees; and by the student representatives from the University of Kentucky and University of Louisville, respectively.

Reports of KMA committees and Resolutions were officially introduced and recognition was given to the many individual physicians serving on committees who had contributed time and efforts during the year on behalf of the profession.

The second session of the House of Delegates convened on Wednesday evening with the main order of business being consideration of Reference Committee reports and deliberation and voting on a number of major issues to establish KMA policy in various areas. Some of the policies established were:

- Recognition of the growth and success of the Kentucky Medical Insurance Company.



AKMA Past President, Barbara Cox presented checks to Peter P. Bosomworth, M.D., Vice President at the University of Kentucky (left) and Donald Kmetz, M.D., (right) Acting Dean of the University of Louisville School of Medicine. Doctor Bosomworth also received the Educational Achievement Award during the first meeting of the House of Delegates.

- Expansion of the KMA Headquarters Building.
- Consideration of so-called "competition bills" that purport to continue care delivery in a competitive manner at reduced rates.
- Withdrawal of sponsorship of Physician Assistants legislation.
- Support for the Commissioner of Health Services being a physician.
- Support for legislation to require the non-prevailing party to pay attorneys' fees and liability litigation.
- Adequate financial support for indigent care and the state's teaching hospitals.
- Support for development of a statewide medical examiner program.
- Opposition to treatment of visual problems by anyone other than physicians.
- Support for referral of individuals with suspected eye disease to a physician.
- Support for mandatory child restraints in automobiles.

- Support for reimbursement to two physicians treating the same hospitalized patient simultaneously.

- Opposition to continued funding for PSRO; support for repeal of the Health Planning Law.

- Opposition to the current moratorium on hospital bed construction in Fayette and Jefferson Counties.

- Opposition to regionalization of health departments and support for the simultaneous operation of regional and centralized poison control centers.

Five physicians were elected by the House of Delegates to serve on the 1981 Nominating Committee. Members elected were:

Carl Cooper Jr., M.D., Bedford; Chairman James A. Baumgarten, M.D., Owensboro; Harold T. Faulconer, M.D., Lexington; Thomas L. Heavern, Jr., M.D., Highland Heights and Walter I. Hume, Jr., M.D., Louisville.

Attendance

Registration for the Annual Meeting was 2,210, an increase over last year's attendance. General Scientific and Specialty Groups sessions were well attended as were both meetings of the House of Delegates.

The 1982 KMA Annual Meeting is scheduled for September 20 through 23, at the Hyatt Regency in Lexington.



William M. Christopherson, M.D., Distinguished Professor of Pathology at the University of Louisville also received the Educational Achievement Award at this year's Annual Meeting.



Doctor Pitzer talks with WAVE television reporter Max Williams about current issues facing organized medicine.

Winners of the Scientific Exhibits Award for Excellence during the Annual Meeting were: "Diagnostic Ultrasound," Anthony Duncan, M.D., William Joule, M.D., John Watts, M.D., Peter Wayne, M.D. and Joseph Whelan, M.D., St. Anthony Hospital, Louisville and "Pulmonary Diagnostic Techniques," Thomas M. Jarboe, M.D., Lexington. The exhibits were judged by the KMA Scientific Exhibit Committee.

Letters

September 28, 1981

Ballard Cassady, M.D.
President
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, KY 40205

Dear Hop:

Thank you for the very kind hospitality you extended to me during my recent visit during the Annual Meeting of the Kentucky Medical Association. In the recent past insurance problems have brought our states closer together. I am sure we will find other issues to work on together and I look forward to it.

Let me also take this opportunity to extend my congratulations and best wishes to you on your induction as President of the K.M.A.

With personal regards and best wishes, I remain

Sincerely yours,
Stewart B. Dunsker, M.D.
President
Ohio State Medical Association

September 28, 1981

Mr. Robert G. Cox
Executive Vice President
Kentucky Medical Association
3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205

Dear Mr. Cox:

Thank you very much for your hospitality in Louisville and for the framed picture of the Triple Crown winners, which is now gracing my den.

Incidentally the family has also enjoyed the cookbook which was being sold at the convention and in fact I think my sister-in-law is writing for a copy herself!

Very sincerely,
John Shillito, Jr., M.D.
Boston, Mass.

September 25, 1981

Mr. Robert G. Cox
Executive Vice President,
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

Dear Mr. Cox:

It was indeed a pleasure to visit the Kentucky Medical Association's Annual Meeting and I want to thank you for the wonderful hospitality and fellowship that I enjoyed. The dinner meeting at the Country Club was superb and the luncheon was just delightful. I appreciate the privilege of meeting all of your officers and having the privilege of hearing Lieutenant Governor Martha Lane Collins.

Many thanks for the framed picture commemorating the Triple Crown winners. My son is a great horse lover and we will certainly enjoy having this picture in our home. Again, many thanks for all of your hospitality and fellowship. With sincere best wishes. I am,

Yours truly,
Percy Wooton, M.D.
President
Medical Society of Virginia

October 16, 1981

Ballard W. Cassady, M.D., President
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

Dear Doctor Cassady:

Thank you for the hospitality shown to me at your recent Annual Meeting of the Kentucky Medical Association. I thoroughly enjoyed my visit to Louisville; the opportunity to meet with the physicians of the KMA pleased me greatly. Please accept my congratulations on your new position and the fine work being accomplished by your organization.

Please do not hesitate to contact me if I or our staff in Chicago may be of assistance to you or the Kentucky Medical Association in the future.

Thank you again.

Sincerely,
Fred Z. White, M.D.
President
Illinois State Medical Society



During the President's Luncheon, Doctor Scheen, right, presented Glenn U. Dorroh, M.D., Lexington, with the Distinguished Service Award for his accomplishments in the field of community health.



Exhibitors representing more than 100 companies attended this year's Annual Meeting.



From left to right: Van Jenkins, M.D., Lexington, Chairman of Maternal and Child Health Care Committee; Thomas Jarboe, M.D., Lexington, President, Fayette County and David C. Liebschutz, M.D., Danville, 12th District Alternate Trustee, talked during a break in the first House of Delegates meeting.

Was Your Delegate Present? ROLL CALL 1981 House of Delegates KMA Annual Meeting

OFFICERS

		First Session	Second Session
Speaker	Bennett L. Crowder, II	Present	Present
Vice Speaker	Peter C. Campbell, Jr.	Present	Present
President	Frank R. Pitzer	Present	Present
President-Elect	Ballard W. Cassidy	Present	Present
Vice-President	Charles B. Spalding	Present	Present
Secretary-Treasurer	S. Randolph Scheen	Present	Present
Delegate to the AMA	David B. Stevens	Present	Present
Delegate to the AMA	Fred C. Rainey	Present	Present
Delegate to the AMA	Harold D. Haller, Sr.	Present	Present
Alternate Delegate to the AMA	Kenneth P. Crawford	Present	Present
Alternate Delegate to the AMA	Wally O. Montgomery	Present	Present
Alternate Delegate to the AMA	Lee C. Hess	Present	Present

TRUSTEES

District			
First	Wally O. Montgomery	Present	Present
Second	R. J. Phillips	Present	Present
Third	Henry R. Bell	Present	Present
Fourth	Thomas R. Taylor		
Fifth	Walter S. Coe		Present
Sixth	Earl P. Oliver		Present
Seventh	William P. McElwain		Present
Eighth	Robert E. Smith	Present	Present
Ninth	Don R. Stephens		
Tenth	Richard F. Hench	Present	Present
Eleventh	Dwight L. Blackburn	Present	Present
Twelfth	Danny M. Clark		Present
Thirteenth	Howard B. McWhorter		Present
Fourteenth	Charles G. Nichols	Present	Present
Fifteenth	Donald C. Barton	Present	Present

ALTERNATE TRUSTEES

District			
First	John D. Noonan	Present	Present
Second	Albert H. Joslin	Present	Present
Third	Sam H. Traughber		
Fourth	John W. Ratliff		
Fifth	Glenn W. Bryant		Present
Sixth	L. Martin Wilson, Jr.		Present
Seventh	Cecil D. Martin	Present	Present
Eighth	William R. Yates		
Ninth	R. Kendall Brown	Present	
Tenth	Colby N. Cowherd		
Eleventh	Don E. Cloys	Present	Present
Twelfth	David C. Liebschutz	Present	Present
Thirteenth	Ranjit Sinha	Present	Present
Fourteenth	Roger D. Akers		
Fifteenth	Emanuel H. Rader	Present	Present

PAST-PRESIDENTS

Past President	Robert S. Howell	Present	
Past President	Carl Cooper, Jr.	Present	Present
Past-President	John P. Stewart		Present
Past-President	Paul J. Parks	Present	Present
Past-President	David A. Hull		Present

DELEGATES FIRST DISTRICT

		First Session	Second Session
BALLARD	Jesse M. Hunt, Jr.		
CALLOWAY	Charles D. Clark	Present	Present
CARLISLE	Robert Gary Marquardt	Present	Present
FULTON	C. Douglas LeNeave		
GRAVES			
HICKMAN	Stephen Burkhart		

LIVINGSTON MCCRACKEN

MARSHALL

DAVIESS

HANCOCK HENDERSON

MCLEAN OHIO UNION WEBSTER

CALDWELL CHRISTIAN

CRITTENDEN HOPKINS

LYON MUHLENBERG TODD TRIGG

BRECKINRIDGE BULLITT GRAYSON GREEN HARDIN

HART LARUE MARION MEADE NELSON TAYLOR WASHINGTON

JEFFERSON

JEFFERSON

C. Dale Brown

Larry C. Franks	Present	Present
John Kraus	Present	Present
John Noonan	Present	Present
Ben Taylor	Present	Present
Keith E. Ellis	Present	Present

SECOND DISTRICT

James E. Anderson	Present	Present
James A. Baumgarten	Present	Present
Angela Jarvis	Present	Present
Albert H. Joslin	Present	Present
R. John Sanders	Present	Present
B. Presley Smith	Present	Present
Kenneth M. Eblen	Present	Present
John McClellan	Present	Present
Hugh H. Wilhite	Present	Present
Robert E. Norsworthy	Present	Present

THIRD DISTRICT

N. H. Talley	Present	Present
Delmas Clardy	Present	Present
James F. Rozelle	Present	Present
George W. Thomas	Present	Present
W. R. Alexander	Present	Present
R. K. Bachman	Present	Present
C. R. Dodds	Present	Present
W. H. Klompus	Present	Present
R. W. Hodge	Present	Present
William Miller	Present	Present
J. N. Terhune	Present	Present
C. Bruce Caplinger	Present	Present

FOURTH DISTRICT

James G. Sills	Present	Present
James R. Cundiff	Present	Present
Victor F. Duvall	Present	Present
William L. Shuffett	Present	Present
William M. Carney	Present	Present
Wreno M. Hall	Present	Present
Jim Middleton		Present
M. A. Douglas, Jr.		Present
Salem George		Present
Richard L. O'Connell	Present	Present
Michael C. Hess	Present	Present

Dixie Snider

FIFTH DISTRICT

Richard Allen	Present	Present
Billy Andrews	Present	Present
Gerald Berman	Present	Present
David H. Bizot	Present	Present
Harold W. Blevins	Present	Present
Glenn W. Bryant	Present	Present
Jerry B. Buchanan	Present	Present
John L. Bunting	Present	Present
Peter C. Campbell, Jr.	Present	Present
E. Dean Canan	Present	Present
James Childers	Present	Present
Samuel L. Cooper	Present	Present
Thomas C. Dedman, III	Present	Present
Bob M. DeWeese	Present	Present
Michael B. Flynn	Present	Present
Daniel P. Garcia	Present	Present
Hoyt Gardner	Present	Present
Robert R. Goodin	Present	Present
Laman A. Gray, Jr.	Present	Present
Larry P. Griffin	Present	Present
John J. Guarnaschelli	Present	Present
Mary Rice Hayman	Present	Present
John G. Hubbard	Present	Present
Walter I. Hume, Jr.	Present	Present
Arthur T. Hurst, Jr.	Present	Present
J. G. Kuhns	Present	Present
Jerome P. Lacy	Present	Present
Theodore N. Lynch	Present	Present
Joseph C. Marshall	Present	Present
Edward N. Maxwell	Present	Present
James P. Moss	Present	Present
Robert A. Noel	Present	Present
Robert L. Nold, Sr.	Present	Present
Lynn L. Ogden	Present	Present
C. Kenneth Peters	Present	Present
Henry W. Post	Present	Present

Fred C. Rainey, M.D. Seeks AMA Position



Fred C. Rainey, M.D., Past President of KMA and KMA Delegate to the AMA, is seeking a three-year term as a member of the AMA Board of Trustees. This announcement was recently made and is endorsed and strongly supported by the KMA Board of Trustees and House of Delegates. Doctor Rainey serves as the Secretary of the American Medical Political Action Committee Board of Directors and was recently elected Chairman of the prestigious AMA Council on Legislation.

In this capacity Doctor Rainey testified before the House Ways and Means health subcommittee regarding the Administration's legislative proposals seeking consumer choice plans.

Doctor Rainey urged rejection of proposals that would increase Federal regulations "or that would require undesirable restrictions of our health system." He also stated that "any program to promote competition of consumer choice should not create or perpetuate preferential treatment . . . of any one particular mode of health delivery."

Doctor Rainey has practiced family medicine in Elizabethtown, Kentucky for 23 years.

Doctor Rainey

Headquarters Activity

DECEMBER

- 3 Specialty Group Presidents, Louisville
- 3 Scientific Program Committee, Louisville
- 3 School Health, Physical Education and Medical Aspects of Sports Committee, Louisville
- 8 *Journal* Editors, Louisville
- 10 Committee on State Legislative Activities, Louisville
- 10 Committee on Impaired Physicians, Louisville
- 10 KMA Insurance Agency Board, Louisville
- 16 KMA Board of Trustees, Louisville

- 17 KMA Board of Trustees, Louisville
- 17 KMIC Board of Directors, Louisville
- 24 Office Closed
- 25 Christmas

JANUARY

- 1 New Year's Day, Office Closed
- 5 General Assembly Convenes, Frankfort
- 6 Judicial Council, Louisville
- 12 *Journal* Editors, Louisville

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

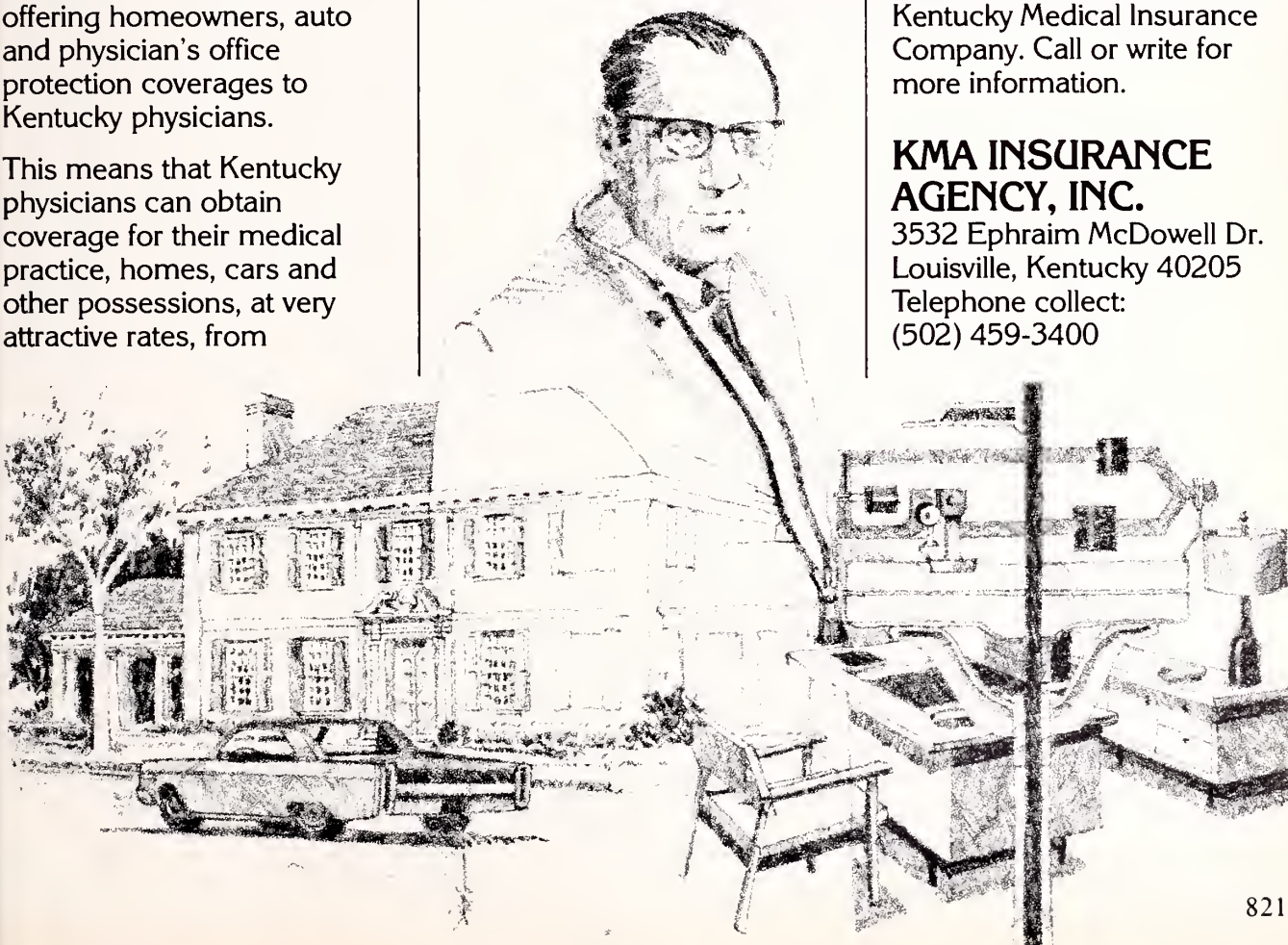
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



Avil McKinney is New President of BCBS



Avil L. McKinney officially became president and chief executive officer of Blue Cross and Blue Shield and Delta Dental of Kentucky on October 1, 1981. This change, announced in March 1981, took place on the retirement of Donald W. Giffen, president of the Plans since 1976 and an employee there for the past 35 years.

Mr. McKinney currently serves on the board of both the Louisville Area Chamber of Commerce and the Kentucky Chamber of Commerce. He is a past member of the Kentucky Governor's Consumer Advisory Council having served in that capacity in both the Ford and Carroll administrations. He is a director of United Kentucky, Inc. and United Kentucky Bank.

An employee of the nonprofit Blue Cross and Blue Shield Plan since 1953, Mr. McKinney has been executive vice president since August 1976. He is currently a member of the Blue Cross Association Plan Approval/Blue Shield Association Membership Committee, the BCA/BSA Plan Services Committee, the BCA Ad Hoc Committee on Fair Payment Practices, and a BCBS Associations task force for achieving economies in government programs.

Avil McKinney

Fayette County Medical Society and Auxiliary Work to Develop Ronald McDonald House

The Fayette County Medical Society and Auxiliary along with McDonald's restaurant representatives and other volunteers have formed a non-profit organization called Children's Oncology Services of the Blue Grass, Inc.

The purpose of the organization is to establish and operate a Ronald McDonald House in Lexington. This house will serve as a home to families from Kentucky whose children are receiving treatment at Lexington hospitals for chronic illness.

Anyone interested in the Ronald McDonald House project is invited to participate. There are no dues. For more information write Ronald McDonald House, P.O. Box 22414, Lexington, KY 40502.

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PEDIATRICIAN NEEDED in Glasgow, Ky.—immediate office space, 200 bed hospital within 1000 feet, salary and fringe benefits for two years, then full partnership, Call collect—Day 502-651-9755 or night 502-678-1407.

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NAPLES FLORIDA, spectacular waterfront view, 3 bedroom, 2 bath condominium, elegantly furnished, tennis, pool, boating, children welcome. Weekly, monthly and seasonal rentals. Contact D. Kelly M.D. (606) 266-5674.

For your patients' benefit...

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YOUR NEXT ANTIARTHRITIC
PRESCRIPTION,
PLEASE READ
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TWO WAYS YOU WILL SAVE MONEY WITH

Introducing

RUFEN[®] (ibuprofen)

\$1.50 REBATE DIRECT TO YOUR PATIENTS ON EVERY PRESCRIPTION OF 100. REFILLS INCLUDED.

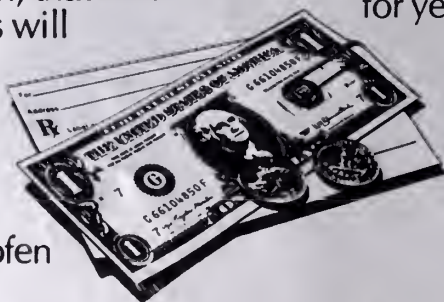
One dollar fifty cents returned for every Rebate Coupon your patients mail in.

Every bottle of 100 tablets of RUFEN 400 mg has a Rebate Coupon attached, with full instructions for redemption.

It has already been determined, through public opinion research, that most arthritic patients will appreciate direct rebate savings as much as they appreciate the results of ibuprofen therapy.

AND RUFEN IS PRICED LOWER TO BEGIN WITH.

Boots has already priced RUFEN lower to the wholesaler and the retailer. And if these savings are passed along, as they should be, your patient will receive the benefit of this lower price. Add these savings to the rebate, and your patients receive substantial relief from the costs of a medication many of them may take for years.



RUFEN IS NOT A GENERIC. BOOTS IBUPROFEN IS THE ORIGINAL.

And if you wish, RUFEN may be substituted for Motrin[®], because it is bio equivalent.*

Original research by T. J. Boots Company Ltd., of Nottingham, England, developed ibuprofen.

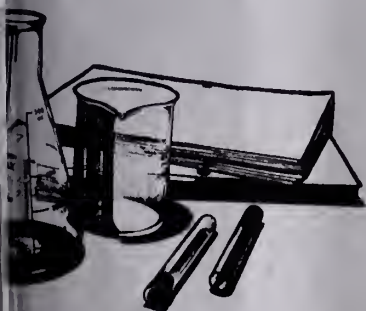
And though we introduced it ourselves elsewhere around the world, licensed ibuprofen for sale in the United States.

ARTHRITIC PATIENTS BUPROFEN THERAPY.

You first came to know
it as Motrin (ibuprofen),
manufactured by Upjohn.
Now, as we have estab-
lished facilities in America,
we hope you'll come to
know Boots brand name
or ibuprofen as RUFEN.

BIOEQUIVALENCY? OF COURSE.*

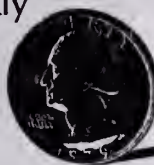
That's why you may substi-
tute RUFEN for Motrin.



data on file.

ALSO: A BOOTS CONTRIBUTION TO ARTHRITIS RESEARCH WITH EVERY REBATE.

A 25¢ contribution per
rebate is built directly
into the RUFEN
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thousands of pre-
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each year, the annual po-
tential for arthritis research is
enormous.



Rufen[®]
(ibuprofen)

WHEN YOU'RE WRITING YOUR NEXT PRESCRIPTION FOR IBUPROFEN, PLEASE REMEMBER:

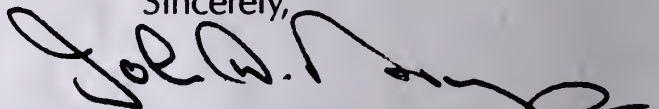
- RUFEN®** OFFERS A \$1.50 REBATE DIRECT TO YOUR PATIENTS ON EVERY BOTTLE OF 100 TABLETS OF RUFEN 400 MG.
- RUFEN** COSTS YOUR PATIENTS LESS TO BEGIN WITH.
- RUFEN** CONTRIBUTES 25¢ PER REBATE TO ARTHRITIS RESEARCH.
- RUFEN** IS NOT A GENERIC... BOOTS IBUPROFEN IS THE ORIGINAL.
- RUFEN** (IBUPROFEN) IS BIOEQUIVALENT TO MOTRIN® (IBUPROFEN).*

I hope we've given you several good reasons to remember RUFEN the next time you prescribe ibuprofen.

If we haven't, or if you'd like to know more about Boots Pharmaceuticals or this program, please don't hesitate to drop me a line. Or call us directly at our toll-free number: (800) 551-8119. Louisiana residents, call (800) 282-8671.

To ensure that your patients receive the benefits of the Rufen program, be sure to specify "D.A.W.," "No Sub," or "Medically Necessary," as required by the laws of your state.

Sincerely,



John D. Bryer, President
Boots Pharmaceuticals, Inc.



Boots Pharmaceuticals, Inc.
6540 LINE AVENUE, SHREVEPORT, LOUISIANA 71106

Pioneers in medicine for the family

RUFEN® (ibuprofen/Boots)

(For full prescribing information, see package brochure.)

RUFEN® Tablets (ibuprofen)

INDICATIONS AND USAGE: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in the long-term management of these diseases. Safety and effectiveness have not been established for Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain.

CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNINGS).

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally; however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease, and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: Coumarin-type anticoagulants. The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS

Incidence greater than 1%
Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4% to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (including maculopapular type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100
Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** ic: vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see PRECAUTIONS). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** gynecostasia, hypoglycemia. **Cardiovascular:** arrhythmias (Sinus tachycardia, bradycardia, and palpitations). **Renal:** decreased creatinine clearance, polyuria, azotemia.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine; alkaline diuresis may benefit.

DOSAGE AND ADMINISTRATION: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage 400 mg t.i.d. or q.i.d.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain. Do not exceed 2,400 mg per day.

CAUTION: Federal law prohibits dispensing without prescription.

Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106

The James H. Letcher Memorial Meeting of the Kentucky Medical Association

Ramada Inn, Bluegrass Convention Center,
Louisville, Kentucky, September 21-24, 1981

Digest* of Proceedings of the Regular Session of the

House of Delegates

Bennett L. Crowder, II, M.D., Hopkinsville
Speaker of the House, Presiding

First Meeting

Speaker Crowder called the first meeting of the 131st Session of the KMA House of Delegates to order at 9:10 a.m. Monday, September 21, 1981, and asked Paul J. Parks, M.D., Bowling Green, to give the Invocation. He then called on John E. Downing, M.D., Bowling Green, Chairman of the Credentials Committee. Doctor Downing reported that a quorum was present. A motion was made, seconded, and carried that the Minutes of the 1980 session of the House of Delegates be approved as published in the December 1980 Journal of the Kentucky Medical Association.

S. Randolph Scheen, M.D., Louisville, Secretary-Treasurer, gave several announcements. He noted that scientific sessions would begin at 8:50 a.m. Tuesday in the Convention Center; and stressed that the highlight of the Annual Meeting, the President's Luncheon, would be held in the Convention Center on Wednesday at 11:50 a.m. Doctor Scheen reminded the Delegates that the Nominating Committee for general officers would meet at the close of the first meeting of the House, and Reference Committees would convene at 2:00 p.m. in the Convention Center.

Doctor Scheen read a list of member physicians who had died since the 1980 session of the House of Delegates, following which the members of the House stood for a moment of silent tribute. The names of the physicians are as follows:

William H. Ball, Harlan
Charles Baron, Covington
Herbert M. Bertram, Vanceburg
Billie Jo Caudill, Falmouth
Morris Cohen, Louisville

Paul W. Cronen, Louisville
Raymond G. Culley, Ashland
Jesse Morrill Dishman, Greensburg
John L. Dixon, Utica
W. Gerald Edds, Calhoun
William C. Gardner, Madisonville
Donald Godwin, Henderson
Joseph Rogers Griffitt, Nicholasville
Frederick Carl Hauck, Owensboro
John P. Hill, Jr., Somerset
John Kenneth Hutcherson, Louisville
Duncan G. Johnson, Owensboro
M. Stuart Lauder, Frankfort
Joseph James Lee, Louisville
Stewart Wallace Leonard, Louisville
Hobert Lester, Louisa
William K. Massie, Lexington
James Thomas McClellan, Lexington
Clarence J. McGruder, Henderson
Richard T. McMurtry, Cynthia
William W. Myre, Paducah
Deepak Nagar, Louisville
James O. Nall, Owensboro
Philip T. Newton, Jr., Lexington
John H. Neyer, Ashland
Carl Noble, Booneville
Joan C. Paust, Louisville
James E. Randolph, Covington
Arthur L. Robertshaw, Paducah
A. Lemuel Rosenblatt, Louisville
Edwin P. Solomon, Jr., Louisville
Harvey B. Stone, Hopkinsville
Beverly T. Towery, Louisville
Esther C. Wallner, Louisville
John Thomas Walsh, LaGrange
Abraham Wikler, Lexington
Hugh C. Williams, Louisville
George H. Zwick, Dayton

Doctor Crowder then turned the podium over to KMA President, Frank R. Pitzer, M.D., Hopkinsville, to present Educational Achievement Awards to William M. Christo-

*Editorial Note: A tape recording was made of the two meetings of the House of Delegates, and any member who desires to examine the transcript of these proceedings may visit the Headquarters Office and listen to the recordings.

pherson, M.D., Louisville; and Peter P. Bosomworth, M.D., Lexington.

Doctor Crowder announced that the names of members of the 1981 Reference Committees were printed on pages 15 and 16 of the Delegates' Handbook. He reported Tellers for both meetings would be N. H. Talley, M.D., Princeton, Chairman; John P. Schmitz, M.D., Florence; and Gary R. Wallace, M.D., Lexington.

Doctor Pitzer asked Mrs. Warren D. Cox, immediate past president of the Auxiliary to KMA, to present AMA-ERF checks to the Deans of the two medical schools, which was a culmination of the Auxiliary's efforts throughout the preceding year. Donald R. Kmetz, M.D. accepted a check for \$16,152.27 on behalf of the University of Louisville School of Medicine; and Peter P. Bosomworth, M.D. accepted a check for \$8,866.91 to benefit the University of Kentucky College of Medicine.

Doctor Crowder reported the Rules Committee was not presenting an oral report to the House this year, but asked the Delegates to refer to a booklet listing operational procedures to be followed which the Rules Committee had developed.

Speaker Crowder stated that notice of a proposed Bylaw change had been mailed to all Delegates in accordance with Section 1, Chapter XIII, of the Bylaws. The proposed amendment would eliminate the limitation imposed on the number of terms available to an individual as Secretary-Treasurer of the Association. A motion was made and seconded that the Bylaws be changed as proposed, and following discussion the motion carried.

Chapter IV, Section 1, of the Bylaws would then be amended to read as follows: (Deleted phrase appears in bold in Journal.)

Section 1. The President-Elect and the Vice President shall be elected from the state at large for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice-President and on any ballot where a majority is not obtained, the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast. Delegates to the AMA and their alternates shall be elected from the state at large for terms of two years, with the provision that no more than one delegate and no more than one alternate delegate shall be elected from one component society. The Speaker of the House of Delegates, the Vice-Speaker and the Secretary-Treasurer shall be elected for terms of three years. ~~[, but no member shall be eligible for election to more than two consecutive full terms as Secretary-Treasurer.]~~ Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that one-third of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of

President, President-Elect, Vice President, Secretary-Treasurer, Speaker or Vice-Speaker of the House of Delegates, Trustee or Alternate Trustee who has not been an active member of the Association for at least three years.

The Speaker then asked the two AMSA Presidents to give their reports. Ms. Diane Schneider, president of the University of Louisville Chapter of the American Medical Student Association; and Mr. Gary Browning, University of Kentucky Chapter AMSA president, were both present and addressed the House.

Doctor Ballard Cassady, Chairman of the Kentucky Medical Insurance Company Board of Directors, gave the House members an update on the status of their insurance company.

David B. Stevens, M.D., Senior Delegate to AMA, gave a report regarding the number of KMA members who were also members of the AMA, and encouraged those Delegates who are not AMA members to join the national association.

W. Grady Stumbo, M.D., Secretary of the Department for Human Resources, was also in attendance, and briefly addressed the House.

The Kentucky Chapter of the American Association of Medical Assistants hosted a coffee break in the lobby for the House members.

The reports of officers and committees were presented by the Vice Speaker and referred to a Reference Committee as follows: (Only the reports of the officers are read.)

Report of the President—Reference Committee No. 1

Report of the President, Auxiliary to KMA—Reference Committee No. 1

Report of the President-Elect—Reference Committee No. 1

Report of the Speaker of the House—Reference Committee No. 1

Report of the Chairman, Board of Trustees—Reference Committee No. 1, except the last paragraph on Page 5.10 and the full Reports of the Ad Hoc Committee on Medicaid and the Ad Hoc Committee to Study Regional Boards of Health, which are referred to Reference Committee No. 5

Report of the Secretary-Treasurer—Reference Committee No. 1

Report of the Editor—Reference Committee No. 1

Report of the Delegates to AMA—Reference Committee No. 1

Report of the Executive Vice President—Reference Committee No. 1

Report of the Advisory Committee to AKMA—Reference Committee No. 1

Report of the Kentucky Medical Insurance Company Board of Directors—Reference Committee No. 1

Report of the Scientific Program Committee—Reference Committee No. 2

Report of the Scientific Exhibits Committee—Reference Committee No. 2

Report of the Continuing Medical Education Committee—Reference Committee No. 2

Report of the Cancer Committee—Reference Committee No. 2

Report of the Hospital Committee—Reference Committee No. 2

Report of the Emergency Medical Care Committee—Reference Committee No. 2 except Paragraph 1 on Page 17.2 beginning with the second sentence and Recommendations #2, which are referred to Reference Committee No. 5

Report of the Interspecialty Council—Reference Committee No. 2, except Paragraph 2 on Page 18.1 through Paragraph 1 on Page 18.2 and Recommendation #1, which are referred to Reference Committee No. 4

Report of the Maternal Mortality Study Committee—Reference Committee No. 3

Report of the Committee on National Legislative Activities—Reference Committee No. 3

Report of the Committee on State Legislative Activities—Reference Committee No. 3

Report of the Committee on Physicians' Health—Reference Committee No. 3

Report of the Committee on Long-Term Care—Reference Committee No. 3

Report of the President, Blue Cross and Blue Shield Board of Directors—Reference Committee No. 4

Report of the Committee on Medical Insurance and Prepayment Plans—Reference Committee No. 4

Report of the Committee on Claims and Utilization Review—Reference Committee No. 4

Report of the Committee on Health Care Costs—Reference Committee No. 4

Report of the Committee on Maternal and Child Health—Reference Committee No. 5

Report of the Committee on Medicare and Other Governmental Medical Programs—Reference Committee No. 5

Report of the Committee on HSAs—Reference Committee No. 5

Report of the Technical Advisory Committee on Physicians Services (Title XIX)—Reference Committee No. 5

Report of the Committee on Community and Rural Health—Reference Committee No. 5

Report of the Committee on School Health, Physical Education and Medical Aspects of Sports—Reference Committee No. 5, except Recommendation #1, which is referred to Reference Committee No. 3

Report of the Advisory Committee to DHR—Reference Committee No. 5

Report of the Judicial Council—Reference Committee No. 6

Report of the Rural Kentucky Medical Scholarship Fund Board of Directors—Reference Committee No. 6

Report of the Physician-Attorney Liaison Committee—Reference Committee No. 6

Report of the KMA-Kentucky Nurses Association Joint Practice Committee—Reference Committee No. 6, except Paragraph 2 on Page 38.2 and Recommendation #2, which are referred to Reference Committee No. 3

Report of the Membership Committee—Reference Committee No. 6

Report of the Placement Services Committee—Reference Committee No. 6

Report of the Committee on Constitution and Bylaws—Reference Committee No. 6

Report of the McDowell House Board of Managers—Reference Committee No. 6

Report of the KMA Insurance Agency, Inc. Board of Directors—Reference Committee No. 1

NEW BUSINESS

New business was presented to the House by the Vice Speaker and referred to the Reference Committee indicated:

A. Resolution from KMA Board of Trustees—Physicians' Assistants—Reference Committee No. 3

B. Resolution from KMA Board of Trustees—Commissioner, Bureau for Health Services—Reference Committee No. 3

C. Resolution from Harlan County Medical Society—Collateral Compensation—Reference Committee No. 3

D. Resolution from Harold L. Bushey, M.D., Chairman, Committee on HSAs—Repeal of Health Planning Law—Reference Committee No. 5

E. Resolution from Harold L. Bushey, M.D., Chairman, Committee on HSAs—Non-discrimination in Serving as Certificate of Need Board Chairman—Reference Committee No. 3

F. Resolution from McCracken County Medical Society—Medical Malpractice—Attorneys' Fees—Reference Committee No. 3

G. Resolution from Fayette County Medical Society—Eye Care Legislation—Reference Committee No. 3

H. Resolution from KMA Board of Trustees—KMA Headquarters Building Addition—Reference Committee No. 1

I. Resolution from Jefferson County Medical Society—Reauthorization of the Clean Air Act—Reference Committee No. 5

J. Resolution from Jefferson County Medical Society—Government Intrusion into the Practice of Medicine—Reference Committee No. 5

K. Resolution from Jefferson County Medical Society—Quality and Utilization Review—Reference Committee No. 4

L. Resolution from Jefferson County Medical Society—Adequate State Support for Indigent Care—Reference Committee No. 4

M. Resolution from Jere C. Robertson, M.D., and J. K. Conlan, M.D.—Charter of Christian County Medical Society—Reference Committee No. 6

N. Resolution from G. R. Nichols, II, M.D., and Frank R. Pitzer, M.D.—Statewide Medical Examiner Program—Reference Committee No. 3

O. Resolution from G. R. Nichols, II, M.D., and Frank R. Pitzer, M.D.—Member Interest in Service as Medical Examiners—Reference Committee No. 5

P. Resolution from Pennyryle Medical Society—Therapeutic Eye Care Legislation—Reference Committee No. 3

Q. Resolution from Pennyryle Medical Society—Funding PSRO—Reference Committee No. 4

R. Resolution from Pennyryle Medical Society—Referral of Patients with Diseases of the Eye to Physicians—Reference Committee No. 3

S. Resolution from Pennyryle Medical Society—An Amendment to Department for Human Resources Regulation 904 KAR 1:038; Section 3—Reference Committee No. 5

Vice Chairman Campbell announced the meeting places for the Nominating Committee and for the trustee districts electing Trustees and Alternates. He stated the Nominating Committee would report at the close of the first scientific session on Tuesday morning.

The physicians on the Nominating Committee were named as follows: Walter L. Cawood, M.D., Ashland, Chairman; James P. Moss, M.D., Louisville; Charles G. Nichols, M.D., Pikeville; Charles H. Nicholson, M.D., Lexington; and Ben H. Taylor, M.D., Paducah.

The meeting was adjourned at 11:35 a.m.

SECOND MEETING

Speaker Crowder called the second meeting of the House of Delegates to order at 6:05 p.m. and asked Al Joslin, M.D., Owensboro, to give the Invocation. Doctor Downing reported a quorum was present.

Doctor Scheen was then called to the podium for announcements and recognition of guests from neighboring state medical associations who had attended the Annual Meeting. Included were: John B. Markey, M.D., President, West Virginia State Medical Association; Stewart B. Dunsker, M.D., President, Ohio State Medical Association; Fred Z. White, M.D., President, Illinois State Medical Society; Percy Wooton, M.D., President, Medical Society of Virginia; and Martin O'Neill, M.D., President-Elect, Indiana State Medical Association.

The Speaker briefly explained how items appearing on the Consent Calendar would be handled. Each item on the Calendar would be read individually by the Reference Committee Chairman, and if any member wished to question or debate any topic, he could ask for the floor and would be recognized. If no question was called, it would be taken by consent that all items appearing on the Consent Calendar would be adopted or filed by the House, as indicated.

Doctor Crowder recognized Dwight L. Blackburn, M.D., Chairman of the Board of Trustees, who read the following Resolution and made a motion, on behalf of the Board, for its adoption. The motion was seconded from the floor and carried.

Resolution T Board of Trustees Child Restraint Legislation

WHEREAS, the single greatest cause of death and disability for Kentuckians between the ages of one and thirty-five is automobile accidents, and

WHEREAS, 80% of this carnage is unnecessary and is preventable, and

WHEREAS, eight states have already been successful in the passage of the child restraint legislation, and

WHEREAS, the Kentucky Chapter of the American Academy of Pediatrics has endorsed this concept, now therefore be it

RESOLVED, that KMA endorse the concept of mandatory child restraints in automobiles and support the passage of such legislation in the 1982 session of the Kentucky General Assembly.

Unfinished Business

Doctor Crowder recognized Dwight L. Blackburn, M.D., Chairman of the Board of Trustees. Doctor Blackburn moved, on behalf of the Board of Trustees, that the name of Earl P. Oliver, M.D., Scottsville, be placed in nomination for election to a four-year term on the KMA Judicial Council. The motion was seconded from the floor and carried.

Doctor Crowder then introduced another Resolution from the Board of Trustees thanking those organizations and individuals responsible for the success of the 1981 Annual Meeting. A motion was made, seconded, and carried to adopt the Resolution.

• Editorial Note: Unless otherwise indicated, the Reference Committee action on each report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REFERENCE COMMITTEE NO. 1

*R. Kendall Brown, M.D., Georgetown
Chairman*

Reference Committee No. 1 considered the following reports and Resolution:

1. Report of the President (Presidential Address)
 2. Report of the President, Auxiliary to KMA
 3. Report of the President-Elect
 4. Report of the Speaker of the House
 5. Report of the Chairman, Board of Trustees, with the following **exceptions**:
Report of the Ad Hoc Committee on Medicaid—referred to Reference Committee No. 5
Report of the Ad Hoc Committee to Study Regional Boards of Health—referred to Reference Committee No. 5.
 6. Report of the Secretary-Treasurer
 7. Report of the Editor
 8. Report of the Delegates to AMA
 9. Report of the Executive Vice President
 10. Report of the Advisory Committee to AKMA
 11. Report of the Kentucky Medical Insurance Company Board of Directors
 43. Report of the KMA Insurance Agency, Inc. Board of Directors
- Resolution H—KMA Headquarters Building Addition (KMA Board of Trustees).

ITEMS FOR CONSENT

Reference Committee No. 1 reviewed the following items and recommends that they be adopted or filed as indicated, by the consent of the House, without discussion:

2. Report of the President, Auxiliary to KMA—filed
3. Report of the President-Elect—filed
5. Report of the Chairman, Board of Trustees, with the following **exceptions**:
Report of the Ad Hoc Committee on Medicaid—referred to Reference Committee No. 5
Report of the Ad Hoc Committee to Study Regional Boards of Health—referred to Reference Committee No. 5—filed
8. Report of the Delegates to AMA—filed

Report of the President, Auxiliary

The theme for the year, "Prescriptions for Healthier Living," was selected with concerns of escalating medical costs, ever prevalent criticism of the medical profession, and the constant need for cost containment. Surely an organization primarily concerned with health needs to exhibit lifestyles promoting preventive measures. As the persons most responsible for food selection and preparation in the home we have much responsibility for the development of healthy diets. Our children learn by the environment in which they are raised, so it also stands to reason that they are **conditioned** as to their ability to handle stress and physical activities they may become involved in. I believe that it would have a desirable effect on families, friends and acquaintances if they saw physicians and the immediate families involved in healthy living—moderation in all things. There have been exciting programs in the local auxiliaries as they "Shaped Up For Life" (or living!). Among some of the programs are: aerobic classes, jazzercise, fun runs, brisk walking groups, dietary changes with the inception of a cookbook by one auxiliary and the compilation of a state cookbook, nutrition classes for the elderly, self awareness and protection, and behavior modification when necessary to handle stress more efficiently. CPR classes have helped educate the public about the risk factors contributing to coronary artery disease.

At the recommendation of the Long Range Planning Committee, in response to a request from some of the members with young children, the Leadership Conference was held in conjunction with the Fall Board Meeting at the Ramada Inn at the same time as KMA Convention (many of these members attend with their husbands). The attendance was not improved and the decision was made to return to the earlier time next year. These two meetings were most beneficial to those in attendance and motivated some of the members to duplicate some of them at the local level. At the board meeting we were addressed by Doctor Robert Hunter, President of AMA, and Doctor Frank Pitzer, incoming President of KMA. There were consultations with the state chairmen responsible for AMA-ERF, Legislation, Membership and Health Projects. The second day was spent with an excellent presentation of self pro-

tection and awareness by staff from the rape relief center. Hopefully this provided our members with better insight into the patterns they establish that might be harmful to them. Following this was an informative presentation on aerobic exercise, what it is, and how it is beneficial. The highlight of this was a demonstration by some of the Fayette County auxiliaries who had been in a class, meeting two to three times weekly. The luncheon was selected by our two state chairmen of nutrition—they provided each attendee with a printed menu. The following program was presented by an expert exercise physiologist, cardiologist and nutritionist. They demonstrated the bodily needs of proper nutrition, adequate and proper physical exercise to maintain the cardiovascular, respiratory and musculoskeletal system. This afforded our membership a wonderful opportunity to question the experts. The following day the auxiliary sponsored a CPR certification class for physicians, their spouses and office personnel. This was preceded by an early morning fun run and brisk walk with T-shirts and trophies being awarded.

Six county presidents-elect, the state president-elect and I attended the AMAA Leadership Conference held in Chicago in October. Kentucky was proud to have immediate Past President Oneida Betts serving on the AMAA Long Range Committee. All seminars were attended by our members and provided much excellent program material, to be shared with all county auxiliaries through the Bluegrass News, President's Newsletter and local programs. Tapes of each session were available to anyone wishing to purchase some. The transportation is provided by the AMAA for five county presidents-elect to this meeting. This meeting provides the future leaders of our auxiliaries with invaluable skills in methods and possible program content. The AMAA also sponsored a meeting in February that is attended by the national board members, state presidents, presidents-elect and president-elect nominees. At this time there is an opportunity to become familiar with the reference committee information and other business to be presented to the House of Delegates and the Annual Convention. There is an opportunity to meet with the other southern states and also a "sharing time" where an exchange of ideas is most beneficial. This meeting gives states an opportunity to have valuable input in the national organization.

Much has been accomplished this year by our 28 organized auxiliaries and their local needs, interests and programs. There have been pediatric orientation programs for the hospital bound or just an educational program; scoliosis screening; eye screening; health fairs; international health; school health programs; immunization; blood bank programs; child abuse awareness; and CPR courses still among the most popular. Some of the other agencies assisted by the auxiliaries are school boards, hospital auxiliaries, cancer society, heart association, Red Cross, emergency medical services and March of Dimes, to name a few. Locally the auxiliaries have increased their contributions to AMA-ERF and the Sharing Card is one of the easiest ways to raise funds for this committee. In excess of \$11,000 was received for this alone. An exciting project was conceived for the state AMA-ERF and the chairman, Dorothy Rush, executed plans for a friendship quilt with local units designing and

making a square depicting something of historical, industry or interest from their area. This was coordinated and the quilt was finished in February. At this time "opportunities" were sold and continue to be sold on the quilt with the drawing to take place at the time of the Fall Board Meeting. This project was a unifying one since some of our smallest auxiliaries were able to participate and the monies earned in their area will be credited as their donation to AMA-ERF. I plan to display the quilt at the KMA House of Delegates at the time I give my annual report and present the AMA-ERF checks to the deans of the two medical schools. (This will be a first since in the past the checks are usually presented at either a KMA Board of Trustee meeting or at one of our meetings.) I took this idea from the AMAA where this occurs. Total contributions were \$25,370, a considerable increase. The quilt has brought in \$1,800 to date.

We have had four expanded issues of the Bluegrass News and have a "new" look. I have attempted, with the expertise of our editor, Mary Evans, to keep in touch with the membership, on the many programs, benefits and activities of the local, state and national auxiliaries. There has been a monthly president's newsletter sent to the state board members, local presidents and presidents-elect to communicate business and information of mutual interest.

It has been with considerable personal regret that I saw the decline in our membership that had been at an all time high last year. We had a national increase of \$4.00 and one of our larger auxiliaries changed its billing procedure and had a decline in membership at the state and national level. One of the difficulties we have is demonstrating the importance of every spouse belonging. The Kentucky leadership has utilized every opportunity to impress the national organization with the importance of great fiscal responsibility at a time when the state and local auxiliaries are also having financial problems.

During the past two years I have been rewarded with the opportunity of visiting and becoming acquainted with many, many members throughout the state and am reminded that this is where the activity really takes place and the accomplishments are carried out. The many benefits the communities receive from these hard working auxiliaries who often do not receive enough credit and I am again reminded that the medical profession, too, needs a good PR person.

As in the past there has been an ever present interest in health careers loan and scholarship funds. One dollar of each member's state dues are deposited to the health careers loan fund and five loans were awarded, with 12 students repaying loans. Since 1955, 34 students have received loans. Locally 10 loans were given and five health career scholarships.

Auxiliaries have continued to be involved in legislative issues and have been represented in candidate races. The state chairman, Phyllis Cronin, had a "Get Out The Vote" drive and the auxiliaries wore, "I'll Be There" pins for a get out the vote AMA drive. The KMA legislation trip to Washington in June of 1980 to visit the legislators and have a briefing from AMA lobbyists on pending medical legislation was of much interest. This was attended by the AKMA legislation chairman, president-elect and myself, along with

KMA staff personnel, officers and selected delegates. We have the opportunity to visit the Kentucky legislators and attend the reception and dinner given by KMA in honor of Doctor Tim Lee Carter on his retirement, after representing the medical profession so capably for many years as a legislator.

A big task was undertaken by the Long Range Planning Committee and the Program Planning Committee, combined, as they updated and revised the directory of AKMA. We now have a current, workable directory with accurate job descriptions. Helen Kinsman was in charge of this duty and has considerable experience to draw on. Along with this, we also made many necessary bylaws changes to be consistent with current policies.

One of my efforts as president-elect and president has been to utilize the vice presidents more efficiently. With that in mind, area meetings were held and the format and organization was carried out most efficiently by the vice presidents. We had two regional meetings with excellent programs but the attendance did not justify the money and time expended. It would still seem that it would be more economical to take programs to areas for one-day meetings rather than continue presidential visits to all counties, at a time when we are trying to control expenditures. The president, president-elect or vice presidents could visit the auxiliaries on request or if a problem required it. It has been an extremely rewarding experience to travel to the counties **but** expensive.

It has been a most rewarding opportunity and privilege to serve as the president of the AKMA and the personal gains will long be remembered with the friendships formed and the personal growth. It has been extremely satisfying to represent AKMA at two AMAA annual conventions as president-elect and president. These opportunities have emphasized the importance of the local, state and national organizations need to work together to promote health programs so that all people may experience the best health care possible. By promoting the many health programs for prevention as advances in medicine are made in cooperation with the AMA hopefully, through mass education this country will be a healthier nation.

It has been beneficial for several members of AKMA to have served on KMA committees. We have been represented on their legislative, McDowell House, Emergency Medical Care, and the Impaired Physician committees as well as on the KEMPAC Board. I attended three District KMA Trustee Meetings and all of the Board of Trustees' meetings. This has been of much benefit as we have had the opportunity to learn more of their organization. We are so fortunate to have the very dedicated and helpful staff at KMA. They were also so willing to assist and do make our daily tasks so much easier by their many benefits.

My thanks to the Auxiliary of KMA for making this a memorable year.

Mrs. Warren M. Cox (Barbara), President, AKMA

Report of the President-Elect

Involvement as President-Elect has provided a unique experience this year. The Association, and organized medicine in general, have witnessed some major events that will probably have a dramatic effect on medical care delivery for years.

Nationally, the new administration, together with a much changed Congress, are in the process of instituting new funding formulae to deal with a number of federally sponsored programs. In the health area, seemingly simple funding changes will result in dramatic changes in the delivery of state sponsored care programs through a method of block grant payments to states. As of this time, implementation of these proposals is marked by uncertainty, but together with funding reductions, significant modifications in the manner in which services are delivered are unavoidable.

At the state level, changes have occurred in health programs partly by state initiation, and partly through federal influence. Everyone is aware of the alterations made to the Medicaid Program, which was the subject of our special House meeting in April. In addition, de-emphasis of health planning (again, because of reduced funding), focus on health planning efforts through state administration, and moves to regionalize state funded care programs have occurred. Final results of these activities, again, will probably not be known for quite some time.

The Association's efforts directed toward evaluating all of these moves, determining appropriate responses and working to put them into effect, have been fascinating, and I appreciate the opportunity of being included in this work. The diligence of your Officers, Board of Trustees and staff in dealing with these matters continues to be an aspect of the Association's work that I view with a great deal of gratitude and comfort.

Without meaning to sound glib, these major activities have been taken in stride by the Association, as it has continued to fulfill its ongoing responsibilities through regular committee activities and the regular duties of the Officers and Trustees.

I anticipate an even more active year as President, and would like to express my appreciation for your trust and confidence. I fully intend to carry on the tradition of service to the best of my ability.

Ballard W. Cassady, M.D., President-Elect

Report of the Chairman of the Board of Trustees

This is my second year to report to you as Chairman of your Board of Trustees. This experience has reaffirmed my appreciation for the services of your Association, the dedication of your Board members, the time and effort expended by committees, and the ever-increasing commitment of the officers and other individuals serving our profession through the Kentucky Medical Association.

KMA productivity continues to rise. We are demonstrating we are a viable and growing organization constantly

searching for new ways to serve the needs of Kentucky physicians.

The election of a new United States President early in the 1981 Associational year brought on a renewed desire to take a look at where we were and where we were going. Some changes that would have positive effects on our lives were obvious, but the basic problems medicine has been facing were not about to go away. Our day-to-day representation of the profession through communication with Washington and Frankfort was considerably increased, perhaps more so than at any time since the beginning of Medicare and Medicaid.

We have had continuous communication with state government officials, even though this has not been a legislative year, and approximately 10 or 12 meetings have been held with the Secretary, Department for Human Resources, and Commissioner for Health Services concerning matters of mutual concern such as Medicaid and the regionalization of health departments.

Our annual trip to Washington was held in June and proved to be most fruitful and was well-attended despite the threat of an airline strike on departure day.

Our Headquarters operation has seen rapid growth in KMA activities, programs, and staff. The Kentucky Medical Insurance Company, our own professional liability insurance company, continues to expand and is now the second largest professional liability insurer in Kentucky. The KMA Insurance Agency is now selling multi-line insurance in addition to a professional liability umbrella policy. Building expansion appears to be a necessity.

Hopefully the "Summary of Board Meetings" will help provide some indication of issues addressed by the Board this year. Copies of the complete Minutes of the Executive Committee and Board of Trustees are being provided to the Chairman of Reference Committee No. 1.

The Chairman of the Board reports annually on the status of the Legal Trust Fund. During the current Associational year, no expenditures have been authorized from the Fund, and the current balance is \$54,770.48.

Summary of Board Meetings

First Meeting, September 25, 1980

Acting as temporary Chairman, KMA Secretary-Treasurer, S. Randolph Scheen, M.D., introduced the newly-elected members of the Board of Trustees and the new officers: Ballard W. Cassady, M.D., Pikeville, President-Elect; Charles B. Spalding, M.D., Bardstown, Vice President; Thomas R. Taylor, M.D., Boston, Trustee, Fourth District; Danny M. Clark, M.D., Somerset, Trustee, Twelfth District; and Charles G. Nichols, M.D., Pikeville, Trustee, Fourteenth District.

The Board then elected the Executive Committee members to serve with the President, President-Elect, Vice President, and Secretary-Treasurer for the 1980-81 Associational year. Chosen as Board Chairman for a second term was Dwight L. Blackburn, M.D., Berea; and Earl P. Oliver, M.D., Scottsville, was named as Vice Chairman. Richard F. Hench, M.D., Lexington, and R. J. Phillips, M.D., Owensboro, were also named to the Executive Committee.

Elected to the KEMPAC Board were John D. Noonan, M.D., Paducah, First District; Harvey A. Page, M.D., Pikeville, Seventh District; and Mrs. Barbara Davis, Louisville, representing the Auxiliary.

The Board reviewed the Executive Committee's recommendation for committee personnel, made appropriate changes and additions, following which committee membership for the 1980-81 Associational year was approved.

It was taken by consent that the 1981 Annual Meeting would be held in Louisville at the Ramada Inn/Bluegrass Convention Center.

It was also taken by consent that the new Trustees on the KMA Board would be appointed to the KMA Insurance Agency Board to replace those Trustees whose terms expired on KMA's Board of Trustees.

The Chairman reported the date of the next meeting of the Board of Trustees would be set at the Officer-Staff Conference following the Annual Meeting.

Second Meeting, December 3-4, 1980

The KMA Board of Trustees met in regular session at the KMA Headquarters Building on December 3 and 4, 1980. President Pitzer related events that had occurred in meetings in which he had been engaged regarding various aspects of the Medicaid Program and Appropriateness Review.

David T. Allen, M.D., Commissioner for Health Services, was present to discuss cost cuts being proposed in the Medicaid Program. Doctor Allen also reported on activities of the Certificate of Need Board and stated that the health planning and licensure/regulatory functions would soon be separate.

S. Randolph Scheen, M.D., Secretary-Treasurer, gave a brief synopsis of Headquarters activity since the last Board meeting. He reported that as of November 30, 1980, KMA had a total membership of 3,639, compared to 3,508 the same time the previous year. Routine reports were also made by representatives of the Kentucky State Board of Medical Licensure; the Kentucky Peer Review Organization; and the Kentucky Medical Insurance Company.

Representatives of the Physicians' Insurance Company of Ohio were in attendance to outline PICO's proposal to offer a life insurance program for Kentucky physicians with policies to be sold through the KMA Insurance Agency. The Board voted to accept the recommendation of the KMA Executive Committee that the Board endorse PICO's life insurance proposal, and that it endorse in principle PICO's offering of property and casualty coverages. It was reported that before rates can be quoted for these lines of insurance, they must first be filed with the Kentucky Department of Insurance for approval.

The Board voted to submit the name of Fred C. Rainey, M.D., for reappointment to the AMA Council on Legislation; and the name of David B. Stevens, M.D., for appointment to the AMA Council on Long-Range Planning and Development.

Action was also taken to resubmit the name of Robert N. McLeod, Jr., M.D., Somerset, for another term on the Advisory Council for Medical Assistance, which is appointed by the Governor.

E. C. Seeley, M.D., was in attendance to address the issue of the recently-abolished Kentucky Drug Formulary Council, and a proposal for a Negative Formulary, a list of inequivalent drugs which could not be substituted. After discussion, the Board voted to adopt a position of opposition to a Negative Formulary.

In other action, the Board endorsed the Kentucky Diabetic Screening Program and a Health Careers Opportunity Program sponsored by the University of Louisville.

At the request of representatives of the Northern Kentucky area, the Board agreed to contact the Secretary for Human Resources, W. Grady Stumbo, M.D., and through him request of Governor Brown that the Northern Kentucky area either be made a separate Kentucky Health Systems Agency or a part of an existing Kentucky HSA. The three Northern Kentucky counties are currently included in an Ohio HSA.

The next scheduled meeting of the Board of Trustees was set for April 1, 1981.

Third Meeting, January 15, 1981

The Board of Trustees met in special session on January 15, 1981, for the primary purpose of discussing an announcement the Secretary of the Department for Human Resources had made the previous day regarding his proposals for reducing expenditures in the Medicaid Program.

KMA's representative on the Medical Assistance Advisory Council, Robert N. McLeod, M.D., and the Chairman of the KMA Technical Advisory Committee on Physician Services, Harold L. Bushey, M.D., were in attendance to provide input into the matter. In discussion, it was observed that these activities relate to the action of the House of Delegates as stated in Substitute Resolution R (1980), and it was therefore probably most appropriate that this matter be presented to the House of Delegates for consideration. Because actual implementation of the proposed cost cuts might be subject to modification and because the House was tentatively scheduled to meet on April 16, the Board voted to authorize the Quick Action Committee to stay abreast of the situation and when indicated call the House into a special meeting on or before April 16. It was also decided that for the time being, KMA would not react officially or otherwise to the cost cut proposals being set forth.

In other action, the Board directed the Committee on Constitution and Bylaws to draft a Bylaw provision outlining the method a county society must follow to withdraw from a multi-county medical society.

The Board went on record expressing appreciation to Robert S. Howell, M.D., for his efforts with KMA's Corporate Visitation Program and voicing its hope that the Program will continue.

The Board took action on a "Kentucky Medical Record Legal Guide," and accepted a report from Blue Cross and Blue Shield regarding rate increases in renewals for the Blue Cross, Blue Shield and Major Medical group plans for Kentucky physicians.

Fourth Meeting, April 1, 1981

The fourth meeting of the Board during this Associational year was held on April 1.

Reports on activities were presented by the President, Secretary-Treasurer, KPRO President and Secretary of the Board of Medical Licensure. An informational report on hospital reimbursement was presented by an official of Blue Cross and Blue Shield followed by comments by Grady Stumbo, M.D., Secretary of the Department for Human Resources, on Medicaid and Regional Health Departments. An Ad Hoc Committee to Study Regional Health Departments was formed for a report at the next meeting.

Discussion was held concerning the special meeting of the House of Delegates set for April 16, the 1981-82 budget was approved, and KMA's appointment on the Voluntary Effort was made. Action was also taken involving peer review, physician assistants, Physician Recruitment Fair, KMA's Medical Student Section Bylaws, primary care center regulations and nurse practitioner regulations.

The Board voted to upgrade KMA's computer operations and took action on recommendations from the Committees on Rural Health, School Health and Claims and Utilization Review.

Directors were elected for the Kentucky Medical Insurance Company, and nominations were confirmed for the Governor's appointment to the Certificate of Need and Licensure Board and the Board of Medical Licensure. Directors were also elected to the KEMPAC Board, and nominees were submitted to the HSA West Board of Directors.

Other matters considered involved the Christian County Medical Society and the CORVA Board in Northern Kentucky.

Fifth Meeting, April 15, 1981

The KMA Board of Trustees met in special session Wednesday, April 15, 1981, for the primary purpose of finalizing a resolution regarding Medicaid for introduction into a special meeting of the House of Delegates the following day.

In addition to adopting a resolution, the Board members appointed an Ad Hoc Committee on Medicaid, and endorsed names that had been submitted to the Department for Human Resources for appointment to a Blue Ribbon Task Force on Medicaid.

Legal Counsel reported on his investigation of legal points raised by an attorney representing three physicians who were contesting review by the Claims and Utilization Review Committee. Acting on advice of legal counsel, the Board reaffirmed its position that the KMA Claims and Utilization Review Committee continue to perform peer review and respond accordingly to the three physicians.

The Board accepted a report of the Ad Hoc Committee on Regional Health Departments which directed legal counsel to review applicable rules to determine if allocations were being appropriately made to local departments; and if combining local health departments into regionalized health departments required a certificate of need.

The Board of Trustees also voted to contribute \$1,000 to the Kentucky Voluntary Effort Steering Committee for the 1981 calendar year.

The next regularly scheduled meeting of the Board of Trustees was set for August 5-6, 1981.

Sixth Meeting, August 5-6, 1981

The sixth meeting of the Board of Trustees was held in Louisville on August 5-6, 1981. A primary purpose of the August meeting annually is to review the reports of the committees to be presented to the House of Delegates.

President Pitzer presented a detailed report on his recent activities with special emphasis placed on the state health plan and recent meetings relating to district health departments. Secretary of the Department for Human Resources, W. Grady Stumbo, M.D., covered numerous subjects in a lengthy report, but also highlighted plans for district health departments.

A summary of the June AMA meeting was distributed with comments made by the Delegates to the AMA. The Board then unanimously endorsed the proposed candidacy of Delegate Fred C. Rainey, M.D. for the AMA Board of Trustees.

Informational reports were presented on the Kentucky Medical Insurance Company, KMA Insurance Agency, Inc., Board of Medical Licensure, and Kentucky Peer Review Organization. Bound copies of *KMA Journals* were presented to immediate past president, Robert S. Howell, M.D., and *Journal* Editor, A. Evan Overstreet, M.D. The Headquarters Office Report was presented by Secretary-Treasurer Scheen.

The Board took action on a number of recommendations from the Executive Committee which had met earlier in the day. These included formalizing a nomination for the Judicial Council and for *Journal* Editors; authorizing a change in KMA members' Blue Cross and Blue Shield coverage; and discussing Ad Hoc Committee reports on the Headquarters Building, Medicaid, and District Boards of Health.

Pursuing plans for an addition of approximately 10,000 square feet to the Headquarters Building was authorized with details to be brought to the Board for approval. The addition is needed for KMIC and KMA Insurance Agency, Inc. which will also finance the cost of such an addition.

The Board decided to reinstate a Parliamentarian for KMA business proceedings, and Thomas L. Heavern, Jr., M.D., Highland Heights, was elected to that position. Board Chairman Blackburn announced the members of the committee to nominate the Executive Committee for the 1981-82 Associational year, and matters relating to the 1981 Annual Meeting were presented.

The Board's final activity of the two-day meeting was a review of all reports being presented to the House of Delegates, and appropriate action was taken on each.

The next meeting was set for Sunday, September 20, at the Ramada Inn in Louisville.

Executive Committee

The Executive Committee conducts the Association's business on a day-to-day basis and acts for the Board of Trustees between sessions of the Board. It consists of four Trustees (including the Board Chairman and Vice Chairman) elected by the Board, along with the President, President-Elect, Vice President, and Secretary-Treasurer.

The Executive Committee has met five times this year to act on a variety of matters presented to it. It maintains close liaison with allied groups and with the committees of KMA which are meeting weekly and often need action taken prior to the next scheduled meeting of the Board.

The Quick Action Committee, composed of the President, President-Elect, Chairman of the Board, and Secretary-Treasurer, is "on call" and frequently meets by telephone as well as quickly scheduled on-site meetings to make "on-the-spot" decisions when a situation warrants such. Normally the Quick Action Committee will meet eight or 10 times during the year and more frequently during legislative years.

Ad Hoc Committees

Ad Hoc Committees were appointed this year to study the areas of Peer Review, Physician Assistants, the Leadership Conference, Individual Practice Associations, Regional Boards of Health, and Medicaid.

The Ad Hoc Coordinating Committee on Peer Review developed guidelines on all components of KMA's peer review system, a summary of which was published in the June issue of the *KMA Journal*. The Ad Hoc Committee on Physician Assistants made a study of legislative efforts to recognize PAs which was accepted by the Board and culminated in Resolution A written by the Board.

The Ad Hoc Committee on the Leadership Conference worked to develop and produce this very successful meeting held in April, and the Ad Hoc Committee on IPAs studied the status and potential of IPAs and HMOs in the state.

The Ad Hoc Committee on Medicaid was appointed at the time of the special meeting of the House of Delegates in April to monitor the status of KMAP and to help suggest KMA policy on Medicaid. The Ad Hoc Study Group on Regional Boards of Health was formed jointly with the Kentucky Academy of Family Physicians to monitor and try to influence the act of regionalization of health department activities.

Dwight L. Blackburn, M.D., Chairman

Report of the Delegates to the AMA

The Kentucky Delegation, consisting of Senior Delegate, David B. Stevens, Lexington; Delegates Fred C. Rainey, M.D., Elizabethtown, and Harold D. Haller, Louisville; and Alternate Delegates, Lee C. Hess, Florence; Kenneth P. Crawford, Louisville; and Wally O. Montgomery, Paducah, represented the KMA at the 1980 Interim Meeting and at the 1981 Annual Meeting of the American Medical As-

sociation. The 1980 Interim Meeting was held in San Francisco, California, December 7-10. At this meeting, little definitive action was taken. Review of the current legislative program was done and progress reports were considered relating to medical education, AMA budget and other items. The AMA budget was approved at this meeting for approximately 68 million dollars for fiscal year 1981. The most dramatic highlight of the meeting was the invitation to the officers of the Association during the meeting to leave and to meet with President-Elect Ronald Reagan.

The second meeting of the House of Delegates during this Associational year was held in Chicago, Illinois, June 7-11, 1981 at the Marriott Hotel on North Michigan Avenue. The AMA holds an interest in this hotel. The main business of the meeting was consideration of changes in the dues. Following a full review of the situation, including the AMA's projected fiscal experience, notwithstanding the negative effect on membership of increased dues, the Delegates voted to raise dues \$35 for the next year. The Delegates also adopted a position to consider raising dues an additional \$30 in 1982 and \$25 in 1984. These dues will insure financial stability and allow the AMA to continue its role as the primary organization in the United States representing physicians in various areas. These areas include legislation, education, practice problems, hospitals, HMOs, continuing education and many other areas. The AMA continues to have a healthy growth in membership for residents and students. Dues for residents will be \$35 and students, \$15. Now physicians will be able to join the AMA directly after the constituent state association has had an opportunity to offer them membership.

The most dramatic item of business related to a resolution introduced by the Resident Section to withdraw support of federal price supports for tobacco. In a debate, this was opposed by the Kentucky Delegation but the emotional appeal of the residents to the Delegates swayed the House and the AMA is now opposed to price supports for tobacco.

Elections There was no competition for Trustees, and re-elected as Trustees for a three-year term were Joseph Boyle, Los Angeles, who was subsequently elected Chairman of the Board; Charles Max Cole, of Dallas, Texas; William Hotchkiss, of Norfolk, Virginia; and Jack Lewis, of Dayton, Ohio. Daniel T. Cloud, of Phoenix, Arizona, was installed as President; and William R. Rial, of Swarthmore, Pennsylvania, was elected President-Elect. Hoyt D. Garner, of Louisville, Kentucky, retired as Immediate Past President. Fred Rainey serves on the Council on Legislation and on the AMPAC Board. David B. Stevens participated as a witness in the Wilk Case in December of 1980 in the Federal Court in Chicago, Illinois. He testified on behalf of the AMA opposing the chiropractors who had sued the AMA and other medical organizations for violation of the Sherman Anti-Trust Act. This case, which lasted six weeks, was won by the AMA and all other defendants when the jury returned a unanimous verdict. The chiropractors have now appealed to the Federal District Court.

"Thank you's" are in order for the excellent staff support headed by Robert Cox, the Executive Vice President; and William Applegate and Robert Klingsmith, in particular, who served as staff for the two AMA trips.

Your Delegation continues to urge you to join the AMA and support its causes as it is the only game in town to represent you in many vital areas. We are at your service, and we will be happy to respond to your questions.

David B. Stevens, M.D., Senior Delegate

End of Consent Calendar Items

Report of the President

Historians will record 1981 as the end of one era and a new beginning in society's approach to government. The historic turnaround, we are told, will be from more government to less. Government has grown in size, power and influence over citizens' lives for years. Guidelines, regulations, inflation, excessive government spending, economic control and excessive taxation have all become an expected and accepted way of life in America in the past 50 years. Excessive government has resulted in overtaxation to maintain programs for social change, not legitimate government purposes. This new beginning offers a unique and unusual opportunity for physicians and medical associations to redirect their efforts and goals towards maintaining a free, independent medical practice. We have the unique opportunity of working in association with our friends in the health care industry to redirect government and legislative efforts towards a free, independent, quality health care system. Once again, we are given the opportunity to be masters of our destiny. If we fail, it will be because physicians and medical associations lack the courage, stamina and the determination to lead their profession through a difficult and troubled period.

The complexities of today's society mandate that we provide expertise and leadership in many areas if we are to be effective in our representation of Kentucky physicians. It has become apparent in recent years that no one group or association has the resources, expertise or manpower to effectively represent its members in so many areas or complex situations as now exist. New efforts and approaches must be forthcoming. We must foster our friendship with our allies in the health care field. Coalitions and strong working relationships must be forthcoming between all components of the health care field if we are to be successful.

In the past year strong efforts have been made towards these affiliations. Joint meetings have been conducted with the Kentucky Hospital Association, the insurance industry and state and federal bureaus. The KMA leadership met with the HSA health planners, state health planners, insurance health planners and state agencies to discuss mutual problems and proposed solutions. These meetings have been successful, in that all parties have developed an acquaintance and respect for the physicians and their Association. While we have not frequently agreed on resolutions and approaches, we are at the conference table discussing the issues in a rational manner without open conflict or confrontation.

Whether we are pro or anti health planning is beside the fact. Health planning is a reality that has been thrust into the health care industry. Although health planning through the HSA system will probably soon die a bureaucratic death, some form of health planning will continue to be present. It is absolutely essential that physicians be a part of any health planning mechanism and that they have representation and input into all levels and avenues of the health planning process. This is a natural position for physicians, they being the most highly trained professionals in the health care system. Physicians are certainly the most knowledgeable to contribute significantly to the planning process for the betterment of medicine.

Coalitions will become a required and necessary component of organized medicine's approach to the health care field. No longer can medicine row its boat separately and independently without friends and associates. A strong coalition must be forthcoming between the Kentucky Hospital Association, Kentucky insurance industry and organized medicine. The fate of each organization is interrelated and their destinies are closely affiliated. While we will have minor differences and philosophically different approaches to the resolution of a particular problem, our common bond will mandate that we work in association, one with the other, in resolving the problems of the health care industry. In the past year, frequent meetings have been held between the KMA leadership, the health care industry and hospital industry. These ongoing regular meetings must continue and become more a part of our program and leadership commitment.

Medicine must present a united front. Specialty groups must unite. We are all physicians first, and specialists second. Our first concern must be medicine and its advancement. Our dedication must be to quality health care throughout all the Commonwealth. In the next legislative session, there will be significant attempts for paramedical groups to enter the practice of medicine. Optometrists, clinical psychologists, social workers, nurse practitioners, nurse specialists, clinical pharmacists and others will attempt by legislative and regulative maneuvers to enter the practice of medicine. While various specialty groups may be specifically concerned about one or another group entering their field, the best approach will be a united, concerted effort on behalf of all Kentucky physicians. A closer working relationship must be established between KMA and all its affiliated specialty groups.

This past year saw a renewal of a Leadership Conference. The Leadership Conference, held April 1 and 2, was most beneficial in providing an overall review of medicine and its relationship to state, federal and local problems. It afforded an opportunity for physicians to develop basic knowledge and experience in leadership roles and techniques. A continuing upward movement of young, dedicated, experienced leaders is mandatory if an association is to provide long-term, successful programs on behalf of physicians. The Association should consider making the Leadership Conference an annual, ongoing portion of their program.

Most of the standing and working committees of KMA have functioned well during the past year. There is, how-

ever, a need for periodic reevaluation of all committee functions and representation. It is essential that all committees have active participating physician members representing all areas of Kentucky, so that each issue can be addressed in the best interest of medicine for the Commonwealth. A possible realignment of committees with a streamlining of their functions should be considered. Token committees, non-functioning committees and unresponsive committees should be studied in detail and either be redirected, or reconstituted for the betterment of the Association. Every physician in the Commonwealth should have access to all levels of the Association's structure and should have the knowledge that, at any time, any physician within the Commonwealth can bring his problems or proposals before the Association without delay. While the staff, Board and Officers are freely accessible to all the membership and have always dedicated themselves to service to Kentucky medicine, it has been my experience that physicians frequently feel they do not have access or input into the program. It must be reaffirmed that, at any time, any physician, anywhere within the Commonwealth, has access to the system and the availability of staff and personnel.

The Kentucky Medical Association is a strong, effective organization that has dedicated itself to service to the medical community. Further coalitions, communication and dedication will allow us to develop an even stronger leadership in medicine and will provide the membership with an effective tool in their efforts to provide the highest quality of medical care throughout the Commonwealth.

Frank R. Pitzer, M.D., President

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed the Report of the President (Presidential Address) and wishes to thank Doctor Pitzer for his excellent report of the year's activities. The Committee believes that the KMA should follow Doctor Pitzer's advice and continue to utilize the Leadership Conference as a means of assisting the development of young and dedicated leaders for the KMA. The Committee also agrees with the President that the KMA should continue the liaison and dialogue with other medical and paramedical groups in the state in an effort to improve the overall care available to the people of the Commonwealth. Reference Committee No. 1 recommends that Report No. 1 be filled.

Report of the Speaker and Vice Speaker of the House of Delegates

Your Speakers would like to take this opportunity to thank each of you for your support and cooperation during the past year, particularly considering the difficult issue that confronted the House in April concerning Medicaid.

Relating to this and many other difficult matters, your Speakers hope that unity and solidarity within the Association will continue to be a major strength.

The KMA staff continues to be outstanding and throughout the year provided help and assistance, and their efforts on our behalf have certainly made our job easier.

We again have had difficulty in appointing Reference Committees due to the late reporting by county societies of the names of their Delegates and Alternates to the KMA. This report should be in by June of each year.

The format for presenting Reference Committee reports is continued. This was modified last year to be consistent with the format used by the AMA, and is felt to be helpful in facilitating the flow of business.

Your attention is again directed to the Rules Committee booklet which is included in the Delegate's packet to provide further information regarding the House of Delegates. Together with members of the Rules Committee, your Speakers are again presenting a Delegates Orientation program on Sunday afternoon, preceding the Annual Convention. We feel this to be helpful to new Delegates, as well as any member who might have questions or comments on procedures used by the House.

We thank you sincerely for the opportunity to serve.

Bennett L. Crowder, II, M.D., Speaker

Peter C. Campbell, Jr., M.D., Vice Speaker

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed the Report of the Speaker of the House and wishes to emphasize the value of the Delegate Orientation Program and to note its usefulness in aiding in the development of interest in future leadership for the Association. Reference Committee No. 1 recommends Report No. 4 be filed.

Report of the Secretary-Treasurer

It is my pleasure to report again to the House of Delegates as Secretary-Treasurer on the activities of our KMA. Our physical facility, the KMA Headquarters Building, has undergone a number of changes in the past year because of our ever-expanding activities. As reported elsewhere, the Kentucky Medical Insurance Company is growing to meet the insurance needs of the membership, and this has necessitated occupation of additional physical space, as well as an increase in personnel. KMA also houses the administrative agency for the Board of Medical Licensure. The space needs of these groups, together with the KMA space and personnel requirements, have caused us to fully utilize all available areas in the building.

The office equipment has sustained normal wear and tear, but proper care and prudent replacement have maintained these items in a satisfactory state. At the same time, with the increase in personnel, additional equipment has been acquired. Our computer capability has been increased to the point where it is now available to all of the organizations and agencies represented in our building through lease and contract arrangements.

It is gratifying to report that the activities of the specialty groups who utilize KMA services have also increased, and we hope that these services are beneficial and satisfactory to the groups using them. Through cross training of per-

sonnel and careful scheduling of equipment use, these services have not had any negative effect on their availability for routine KMA operations.

From a fiscal standpoint, our Association remains solid in spite of the fact that we are now into the seventh year of our five-year dues program. Everyone is affected by inflation, but through careful management and a constant search for cost cutting activities, we have been able to maintain operations at the level necessary without seriously affecting our financial status.

Probably the most consistent resource we have at KMA is people, from our legislative Key Men, to individual committee members and chairmen, to the Board members, Officers and staff, the thread of personal commitment and service makes our Association work. There is a spirit of concern and interest that provides constant gratification to everyone dedicated to the goals of organized medicine. While not meaning to presume on any official prerogative, I would like to personally thank every member who has helped.

It has been my honor to serve you and our Association, and I appreciate that privilege, as well as the privilege of working with all the individuals associated with KMA with whom I have come in contact.

S. Randolph Scheen, M.D., Secretary-Treasurer

Recommendations, Reference Committee No. 1

Reference Committee No. 1 reviewed the Report of the Secretary-Treasurer and recognizes with gratitude the continued efforts that Doctor Scheen has made on behalf of the Association and commends him for his diligence. Reference Committee No. 1 recommends that Report No. 6 be filed.

Report of the Editor

The Editorial Board continues to strive to present scientific information to the membership. It is our goal to provide Kentucky physicians with new developments in the medical field which stress quality of care.

The membership will have noted a new style in both typesetting and design. It is the Board's feeling that these changes have made the *Journal* more attractive and easier to read. The membership may also have noted the use of different cover designs as a means of focusing attention. The Annual Meeting issue utilizes this concept giving highlights of the program to be presented.

The "Profile" section which appears periodically is another series of special articles designed to inform the membership about the personalities and abilities of prominent individuals who have an influence on medicine in Kentucky. Plans are to add a series of special articles on socioeconomic topics that will be of assistance to the membership. Before this is undertaken a statewide readership survey will be accomplished to solicit comments, suggestions and ideas for further improvement of the *Journal*.

Our publication is only as good as those individuals who contribute to its success. The Editors appreciate the assistance provided by the specialty societies in the form of concise articles for publication in the "CME" section. This

section has proven to be of interest to the membership and specialty society participation in this program is encouraged. The Editors also wish to acknowledge their appreciation for the continued support of the University of Louisville's School of Medicine and the University of Kentucky's College of Medicine for submitting articles for the "Grand Rounds" section.

Again, this is your publication and your input is valued. Please let us know through the "Letters to the Editor" section of the *Journal* your likes and dislikes.

The Editorial Board maintains enthusiasm and dedication to its duties. I would like to take this opportunity to thank each member of the Editorial Board and the staff for their time and effort.

A. Evan Overstreet, M.D., Editor

Recommendations, Reference Committee No. 1

Reference Committee No. 1 reviewed the Report of the Editor and notes continued improvement in the form and content of the *Journal*. The Committee notes that Doctor Overstreet has done an excellent job again this year and offers its congratulations on the fine efforts by him and the Editorial Board. Reference Committee No. 1 recommends that Report No. 7 be filed.

Report of the Executive Vice President

During the past 13 years, my reports have discussed an ever-increasing acceleration of activities. This, my 14th report, is no exception. Today the Kentucky Medical Association is doing more for more physicians as can be seen from the committee reports and summaries of Board meetings.

Membership

The number of KMA members has grown steadily over the years. Today both our regular membership and our total membership are at an all-time high. In recent years, however, the number of physicians choosing not to join organized medicine has also increased. A membership campaign is underway to try to reverse that trend.

Finances

The Association remains financially strong even though we have exceeded our five-year dues plan by two additional years during a period of high inflation. A once healthy reserve fund is beginning to deteriorate and deserves a watchful eye. The smaller it becomes, the less able it is to generate operating funds. A small dues increase soon might be more desirable rather than face a more significant one later.

Staff

We were pleased on January 1 of this year to add Bill Doll to our full-time staff. His background as an attorney and experience in legislative activities and governmental

affairs are desirable assets in the medical association field. Bill brings our staff strength to 25, of whom 23 are full-time and 2 are part-time.

The staff represents many years of experience in medical association work with the executive staff alone having nearly 100 years' service at KMA. The staff performs quietly, quickly and efficiently. They work as a team with sincerity and dedication. It is a personal pleasure to be associated with each one of them. The July issue of *KMA Journal* highlighted our staff personnel and their assignments to assist the membership in contacting staff regarding specific problems.

Headquarters Building

The expansion of KMA, the other organizations serviced by KMA staff, and the new corporations formed by the Association have resulted in our usable office space being occupied at 110% capacity. The Board of Trustees has authorized the planning for an approximate 10,000 square foot addition to the Headquarters Building. This would be built primarily for the Kentucky Medical Insurance Company and the KMA Insurance Agency at no cost to KMA. It is anticipated that such an addition may be underway within the first six months of the new Associational year.

Looking Ahead

President Reagan's lessening of the Federal Government's role while increasing that of the state will generate new challenges to KMA leadership and staff. The shift in emphasis from federal to state control may well make Kentucky's upcoming General Assembly one of the most significant in recent history. We will see efforts to control the way medicine is practiced and paid for. These efforts will come, not in the form of liberal national health plans which organized medicine has fought the past two decades, but rather in the form of programs to enhance "competition" between physicians and other providers. Non-physician providers will seek to elevate their position in the legislative arena, supported to some extent by government entities concerned only with lowering the state's cost of providing programs which have changed from political promises to budgetary hardships.

More meetings with state agencies, more negotiation, and more communication have been demanded, and it appears this will be a continuing role for us.

A new computer will be in use as we start the new year and should be of considerable value to us in broadening the scope of services to the membership. It will be shared with KMIC, the Insurance Agency, and other organizations housed at KMA and serviced by our staff.

The Annual Meeting concludes a very busy Associational year and is the final meeting of many seminars, workshops, district meetings, committee meetings, and other activities held throughout the year. Additionally staff has represented the Association at numerous regional and national meetings.

It has been our pleasure to serve you and we look forward to a productive year during 1981-82.

Robert G. Cox, Executive Vice President

Recommendations, Reference Committee No. 1

Reference Committee No. 1 reviewed the Report of the Executive Vice-President and would like to express its sincere thanks to Mr. Robert G. Cox for his continued dedicated efforts on behalf of KMA. Reference Committee No. 1 recommends that Report No. 9 be filed.

Report of Advisory Committee to AKMA

The Advisory Committee to the Auxiliary of the Kentucky Medical Association functions to coordinate and provide liaison to the Kentucky Medical Association Board of Trustees for proposals and projects requiring joint participation or approval. These proposals normally include legislative action and health and fund-raising activities instituted on a statewide basis. The Committee has just completed reviewing the 1981-82 planned program of the Auxiliary, and has referred specific requests for Kentucky Medical Association assistance to the appropriate standing committees.

The Committee wishes to express its great admiration and thanks to Immediate Past President, Mrs. Warren (Barbara) Cox, and to the Auxiliary, for an outstanding year. Once again, the Auxiliary exceeded its previous record in its fund-raising activity for the AMA-ERF grant program. Over \$25,000 was presented to the two medical schools in Kentucky to be used at their discretion to pursue excellence in the medical school programs. The Ephraim McDowell House in Danville, owned and operated by the Kentucky Medical Association, continues to be a large recipient of funds and services donated through the KMA Auxiliary.

The Committee urges members of the Association to continue their long-standing support of the Auxiliary and to recognize the members of the Auxiliary for their continuing support and service on behalf of the citizens of the Commonwealth and organized medicine.

Robert S. Howell, M.D., Chairman

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed the Report of the Advisory Committee to AKMA and recommends that the KMA continue its strong support of the efforts of the Auxiliary to KMA, particularly in regard to the AMA-ERF Grant Program and the Ephraim McDowell House. Reference Committee No. 1 recommends that Report No. 10 be filed.

Report of the Kentucky Medical Insurance Company

This is the third Annual Report to this House on the progress and status of the Kentucky Medical Insurance Company. The Company has now been operational for 28 months, and I am pleased to inform you that our initial

projections are being exceeded. Approximately 1,200 Kentucky physicians are now insured and we are well on our way to reaching our goal of 1,350 policyholders by the year's end with a written premium projected at 2.4 million dollars. Your company's assets by the end of the year will exceed 5 million dollars. We are pleased with this market penetration, particularly considering the current competitiveness in the market. We have received excellent support from Kentucky physicians for their own physician owned and controlled insurance organization, and we anticipate that support to continue.

Effective January 1, 1981, Carl L. Wedekind was elected President and Chief Executive Officer of the Company and has served in that capacity during this year. He also continues to serve as legal counsel to the Kentucky Medical Association.

At the Annual Stockholders Meeting in April, David A. Hull, M.D., Lexington, was elected to the Board of Directors, and John P. Stewart, M.D. of Frankfort retired from the Board. The Company and its shareholders owe a special thanks to Doctor Stewart as it was during his term as President of the KMA and under his leadership that the Kentucky Medical Insurance Company was founded.

The Company continues to occupy space in the KMA Headquarters Building. Consideration is currently being given to acquiring additional space for use by the Insurance Company and the KMA Insurance Agency, and we will be reporting to you as these plans are developed. The Company will soon have all its policy holder records on a computer which is being purchased by KMIC in cooperation with KMA for the joint use of these parties.

This past year has brought about changes in our underwriting and premium classification as a result of an ongoing analysis of loss data. Physicians in residency or Fellowship Programs are eligible for a 30% premium discount for the KMIC policy that covers their limited, part-time private practice. The Company also recognizes the financial problems of beginning a medical practice and provides a discount of 25% for the first year, and 15% for the second year, for new-to-practice physicians. Specialists in Obstetrics and Gynecology who have eliminated obstetrics from their practice have had their rating classification reduced from class 5 to class 4. KMIC will continue to monitor claim trends and make underwriting changes wherever and whenever inequities are found.

You will recall that in June 1979, and again in December 1979, KMIC made premium reductions totalling 20%. These rates are under periodic review by our actuaries, Tillinghast, Nelson and Warren, who have reported that inflation and the trend of increasing claims and awards have caught up with us and that rates should be raised at least to the 1979 level. That change in rates has been filed and approved by the Kentucky Department of Insurance, effective on new policies in September and on renewal policies in October, 1981.

This action by your Board of Directors is in keeping with your Company's policy of determining rates in a businesslike manner and fulfilling our primary responsibility of maintaining an adequate rate structure. If our claims experience proves to be better than anticipated by the actuaries, then

you will benefit by reduced premiums and company dividends.

Our company is doing very well and we are proud of its achievement. It has completely changed the professional liability insurance market in Kentucky to the benefit of physicians, and it will continue to do so with your continued support.

Ballard W. Cassady, M.D.
Chairman, Board of Directors

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed the Report of the Kentucky Medical Insurance Company Board of Directors and was gratified to learn of the continuing success and growth of KMIC. The Committee urges KMA members to continue their support of the company to assure the ongoing availability of liability coverage and direct physician influence on the insurance market. Reference Committee No. 1 recommends that Report No. 11 be filed.

Report of the KMA Insurance Agency, Inc.

The KMA Insurance Agency, Inc. was organized in September 1978, by the Kentucky Medical Association to sell liability insurance policies offered by the Physicians Insurance Company of Ohio, and to assist in setting up the Kentucky Medical Insurance Company. The Agency continues to sell the PICO excess policies, and following the action of the House of Delegates last year endorsing the marketing of additional insurance services, the Agency is making available to Kentucky physicians additional lines of insurance.

Insurance coverage for homeowners, automobile, and office liability, as well as group term life, are now being offered through the Agency, and in just a few months approximately five million dollars in group term life has been placed and more than a million dollars in coverage has been provided in the casualty lines. The response of Kentucky physicians to these programs has been quite encouraging.

This increased activity by the Agency has required the addition of two sales representatives in the Marketing Department who are Tim Doyle and Bob Proffitt. If you have not heard from either of these gentlemen as yet, you will in the future as they undertake to meet your insurance needs.

The KMA Insurance Agency, as well as the Kentucky Medical Insurance Company, has felt the effect of its expanding operations in the close confines of the KMA office building. The Agency, together with KMIC and KMA, is seeking to solve the space needs of all these related organizations.

Because of the increased activities of the Insurance Agency, it is being recommended to the Board of Trustees at its September meeting following the KMA Annual Meeting that the management of the KMA Insurance Agency be streamlined with a reduction in the 26-member

Board of Directors to a nine-person Board composed primarily of the KMA leadership.

The KMA Insurance Agency, Inc. continues as a wholly-owned subsidiary of KMA undertaking to assist the physicians of Kentucky and the Kentucky Medical Insurance Company in responding to the Insurance needs of KMA members.

Dwight L. Blackburn, M.D.
Chairman, Board of Directors

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed the Report of the KMA Insurance Agency, Inc. Board of Directors and noted with great satisfaction the marketing of additional insurance services by the KMA Insurance Agency, Inc. The Committee urges KMA's continued substantial support of these new, potential and growing Association activities. Reference Committee No. 1 recommends that Report No. 43 be filed.

Resolution H

KMA Board of Trustees

KMA Headquarters Building Addition

WHEREAS, KMA owns its own Headquarters Building and sufficient land for a building addition and parking area, and

WHEREAS, KMA owns the KMA Insurance Agency and initiated the formation of the Kentucky Medical Insurance Company (KMIC) in which KMA owns controlling stock, and

WHEREAS, the KMA Headquarters Building is now occupied to the point of exceeding capacity, and

WHEREAS, considerable space is occupied by personnel of the KMIC and KMA Insurance Agency, both of which are growing organizations with additional space requirements, and

WHEREAS, the governing Boards of KMA, KMIC and the KMA Insurance Agency all agree that a building addition is essential so that these three related organizations can remain housed at one site, therefore be it

RESOLVED, that the KMA House of Delegates approve selling or leasing a portion of its land adjoining the present building to the KMA Insurance Agency for purpose of constructing an addition to the current KMA building under terms and conditions determined by the KMA Board of Trustees.

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed Resolution H—KMA Headquarters Building Addition (KMA Board of Trustees) and feels the necessity of the addition is obvious and affirmative as an expression of our organization's growth and development. The Committee recommends adoption of Resolution H.

Reference Committee No. 1 recommends the adoption of the Report of Reference Committee No. 1 as a whole.

Mr. Speaker, the Committee would like to express my sincere thanks to Anna Marie McGinley for her secretarial

assistance to the Committee. Additionally, Mr. Speaker, I would like to express my sincere thanks to the members of this Committee: Thomas C. Dedman, M.D., Louisville; John D. Perrine, M.D., Lexington; William R. Yates, M.D., Crescent Springs; and Lolita S. Weakley, M.D., Louisville, in the preparation of the Report.

REFERENCE COMMITTEE NO. 1

R. Kendall Brown, M.D., Georgetown, Chairman
Thomas C. Dedman, M.D., Louisville
John D. Perrine, M.D., Lexington
Lolita S. Weakley, M.D., Louisville
William R. Yates, M.D., Crescent Springs

• Editorial Note: Unless otherwise indicated, the Reference Committee action on each report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REFERENCE COMMITTEE NO. 2

John W. Kraus, M.D., Paducah
Chairman

Reference Committee No. 2
considered the following reports:

12. Report of the Scientific Program Committee
13. Report of the Scientific Exhibits Committee
14. Report of the Continuing Medical Education Committee
15. Report of the Cancer Committee
16. Report of the Hospital Committee
17. Report of the Emergency Medical Care Committee, with the following exceptions: Paragraph 1 on page 17.2, beginning with the second sentence, and Recommendation 2 (Note: Appears in brackets in *Journal*)—Referred to Reference Committee No. 5
18. Report of the Interspecialty Council, with the following exceptions: Beginning with paragraph 2 on page 18.1 through paragraph 1 on page 18.2; and Recommendation 1 (Note: Appears in brackets in *Journal*)—Referred to Reference Committee No. 4

ITEMS FOR CONSENT

Reference Committee No. 2 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

12. Report of the Scientific Program Committee—filed
13. Report of the Scientific Exhibits Committee—filed
18. Report of the Interspecialty Council, with the following exceptions: Beginning with paragraph 2 on page 18.1 through paragraph 1 on page 18.2, and Recommendation No. 1—Referred to Reference Committee No. 4—filed (Note: Appears in Brackets in *Journal*)

Report of the Scientific Program Committee

The 1981 KMA Annual Meeting features the overall theme of "Problems in the Human Life Cycle: Cardiovascular Disorders." Each half-day session will focus on general areas of human development indicated by the subthemes, "Birth, Infancy and Childhood," "Adolescence to Adulthood," and "The Aging Patient." The highlight of this year's meeting will be an afternoon devoted to the latest advances in the Cardiovascular Care Unit. We are very fortunate to have nationally recognized authorities who will cover the Cardiovascular Care Unit from how the units should be planned to the future of coronary care and some of the concepts that are currently being discussed. The committee members and specialty groups have gone to great lengths to bring in some of the country's most outstanding speakers and we feel the topics that will be presented will be very timely.

The Scientific Program Committee met in early November to plan the program and I think you will agree, did an outstanding job. A second meeting was held in December with the Presidents of the 23 specialty groups which will participate in the Annual Session to discuss their part in planning the Scientific Program. We are pleased to welcome the Kentucky Society of Gastrointestinal Endoscopists as participants in the meeting this year. The various specialty group scientific programs, which are held in conjunction with our general session, have proven invaluable and we feel provide an excellent contribution to the continuing medical education of the membership. I am extremely grateful for the excellent cooperation in planning the overall meeting that we have received from the specialty groups.

This year the program will again be held at the Ramada Inn/Bluegrass Convention Center which has been totally remodeled. Overall, the Ramada Inn/Bluegrass Convention Center is an excellent convention facility allowing us to hold the entire meeting at a single location and is large enough to provide housing for the majority of attendees.

The committee is proud of the fact that KMA's Annual Scientific Program continues to be one of the best attended state meetings in the country. It has received accreditation for continuing medical education by the American Medical Association as well as several specialty societies. The committee feels that the technical exhibit area is a worthwhile and meaningful adjunct to the formal scientific program and that the exhibits offer members the opportunity to discuss new products with the various manufacturers free from the interruptions and distractions of the office or hospital. The technical exhibit hall has been redesigned this year and the number of exhibits increased.

As Chairman of the Scientific Program Committee, I am most grateful for the efforts of those who have assisted in the formation of this program, particularly the Program Committee, specialty group presidents and program chairmen. The tremendous efforts of the staff, particularly Bill Applegate and Jean Wayne, are especially appreciated.

Suggestions for future programs are always welcome by the Scientific Program Committee.

James A. Baumgarten, M.D., Chairman

Report of the Scientific Exhibits Committee

The Scientific Exhibits Committee functions to review and determine the appropriateness of proposed Scientific Exhibits during the Kentucky Medical Association Annual Meeting. All Committee actions are handled by mail and telephone, and the Committee has found this method to be beneficial in terms of time and cost to the Association. Exhibit requests are received at the Headquarters Office and forwarded to Committee members for their review and comments. Following the reviewing process prospective exhibitors are notified of acceptance or rejection.

The Committee continues to be pleased with the exhibits presented during the Annual Meeting. Many of these exhibits are designed by individual physician members of the Association and the quality, both in terms of physical nature and scientific technology, is excellent. We urge members attending the Annual Meeting to stop by each exhibit and discuss with the exhibitors the new procedures, techniques and services available.

As Chairman of the Scientific Exhibits Committee I wish to express appreciation to the members of the Committee for their service to the organization. The majority of the Committee members have served for several years and provide an excellent service to their fellow members. The Scientific Exhibit Hall of the Annual Meeting is a vital and integral part of the Annual Meeting and is a focal point in perpetuating the scientific themes and educational standards of our meeting.

Richard A. Kielar, M.D., Chairman

Report of the Interspecialty Council

In 1978 the House of Delegates adopted Resolution Q relating to Primary Care reimbursement. Initially, an Ad Hoc Committee was appointed. It was subsequently replaced by the Committee on Medical Insurance and Prepayment Plans.

[Since its inception the Committee has sought to resolve concurrent care issues as they relate to reimbursement by third parties, particularly in the area commonly referred to as social visits. The Interspecialty Council met and considered the following item, referred to the Council as a result of recommendations made in the Final Report of the Committee on Medical Insurance and Prepayment Plans adopted by the 1980 House of Delegates.

It is recommended that a policy be developed which would address appropriate concurrent care reimbursement, realizing that concurrent care may sometimes be confused with "social calls," and it is also recommended that this matter be referred to the KMA Interspecialty Council for further discussion and development.

After careful review the Interspecialty Council has adopted a recommendation to the House of Delegates for its consideration. This recommendation in no way seeks to be all-inclusive nor to restrict or define patient-physician-family relations. The Council fully recognizes that specific personal needs of patients and family may necessitate social visits. However, certain limitations may legitimately be imposed by employers and carriers in the interests of reducing health care costs, which may restrict reimbursement for these services. Thus, it must be recognized by all parties that reimbursement for social calls may fall upon the patient rather than third party carriers. The Interspecialty Council qualifies the following recommendations by noting that it is not their intent to define, alter or influence existing or future health insurance contracts but seeks only to lend some form of guidance as requested.

If two physicians are seeing a hospitalized patient simultaneously (or separately for one identified hospital stay) and it is obvious from notes in the patient's record that both are contributing substantially to the patient's care, then both should be remunerated. This would not apply if both physicians are of the same specialty. It would not apply where there is a primary physician and a consultant since the pay for the latter is on a different basis. It would not apply to courtesy or social calls by the family physician or other physician. Whether or not the treatment by a second physician contributed substantially to the patient's care, could, where questioned, be determined by peer review of either hospital or third party mechanism.]

The Interspecialty Council is very concerned and discussed in detail the various inroads into the practice of medicine by non-physician groups. The Committee calls upon all members of the Association to build better rapport with their Senators and Representatives and to participate in the elective processes to insure capable representation. Organized medicine and its members should be alert to and concerned with legislation which restricts and affects individual specialty groups, and that these inroads have a debilitating and long-term effect upon society and medicine in general. Further, the Committee wishes to stress the importance of membership in KEMPAC and in educating physicians and patients of the potential hazards of medical practice by non-physicians.

The Interspecialty Council endorses the long-standing position of the Kentucky Medical Association House of Delegates that legislative proposals and activities must be channeled through the KMA Committee on State Legislative Activities before definitive action by the Association can be undertaken. Under these procedures specialty groups may bring to the attention of the Association legislative problems as they occur to insure a coordinated and united effort.

The Department of Specialty Services, formed by the House of Delegates, is fully operational and providing full or part-time administrative and clerical services to 12 specialty groups. The Interspecialty Council urges specialty and sub-specialty societies not presently utilizing these services to contact the Department for an explanation of services available.

On behalf of the members of the Interspecialty Council, we appreciate the continuing support and confidence of the Association and look forward to serving in the future.

Paul J. Parks, M.D., Chairman

RECOMMENDATIONS:

- [1. If two physicians are seeing a hospitalized patient simultaneously (or separately for one identified hospital stay) and it is obvious from notes in the patient's record that both are contributing substantially to the patient's care, then both should be remunerated. This would not apply if both physicians are of the same specialty. It would not apply where there is a primary physician and a consultant since the pay for the latter is on a different basis. It would not apply to courtesy or social calls by the family physician or other physician. Whether or not the treatment by a second physician contributed substantially to the patient's care, could, where questioned, be determined by peer review of either hospital or third-party mechanism.]

End of Consent Calendar Items

Report of the Continuing Medical Education Committee

The CME Committee continues to monitor CME activities in Kentucky and at the national level. In December 1980, the AMA House of Delegates voted to re-establish ties with the Liaison Committee on Continuing Medical Education (LCCME). This move would re-establish a single national organization with the responsibility of administering the CME accreditation process. In January 1981, the AMA's Council on Accreditation of Continuing Medical Education (CACME) and the LCCME merged to form the Accrediting Council on Continuing Medical Education (ACCME). The ACCME has subsequently met several times and has undertaken steps to make the accrediting process more attainable to smaller hospitals and medical societies. They are also increasing the length of full accreditation from four to six years. All actions taken by our CME Committee in reference to accreditation activities have been accepted by the ACCME.

Of other interest is the moratorium the AMA House of Delegates requested on mandatory CME. The AMA reported that studies showed that mandatory CME had not proven effective in increasing levels of expertise in physicians. Voluntary programs are considered more practical and essential to the physicians' continuing education. To mandate attendance does not insure that the information presented is properly understood and utilized. The AMA has requested all medical societies to delay implementation of mandatory requirements for CME, whether it be for Board re-certification or society membership. Additional study on this subject is needed before a final determination can be made.

The CME Committee would like to recommend to the House that the Voluntary Registration of CME activity be discontinued. Annually, the Committee requested the membership to submit a record of their CME activities. We received less than 5% return and the information obtained is difficult to tabulate and provides no beneficial function at this time. The Committee feels that each physician maintains his own records and for us to do the same would be duplicative and non-productive.

The Committee continues to meet three to four times a year to discuss accreditation activities in Kentucky and develop new methods to encourage more hospitals, county medical societies and specialty societies to seek accreditation. An approach to disseminating information is through an exhibit at the KMA Annual Meeting. The exhibit highlights the goals and benefits of CME in Kentucky. We found this approach to be very beneficial at the 1980 Annual Meeting and are again making arrangements to have a new exhibit this year.

The Committee has reconfirmed its practice of providing co-sponsorship for specialty society programs. Also, we have expanded this program to include other medical groups which are seeking credit. If they meet the basic criteria for co-sponsored programs, they can obtain Category I Credit. Six specialty societies took advantage of this program this year.

During this past year, the Committee resurveyed five institutions for continuing accreditation. Each of these sites showed marked improvements over their previous reviews and all were granted continued full accreditation. The five sites are as follows:

Sts. Mary and Elizabeth Hospital, Louisville
Daviess County Medical Society, Owensboro
Lexington Clinic, Lexington
Boyle County Medical Society and Ephraim McDowell Memorial Hospital
Consortium, Danville
Good Samaritan Hospital, Lexington

The Committee has granted provisional accreditation for St. Elizabeth's Medical Center, Covington, and is reviewing the Kentucky Chapter of American College of Surgeons for similar consideration.

The Louisville Area Consortium is the only other site that was not up for review this year. However, its status has changed, as the Jefferson County Medical Society has withdrawn its support of the Consortium. The Committee granted continued accreditation to the Consortium, as the University of Louisville School of Medicine is continuing to provide administrative assistance and the nine area hospitals that have remained in the Consortium have increased their contributions to maintain the costs of the program.

The Kentucky Peer Review Organization (KPRO) invited members of the Committee and other individuals in the state involved in CME to a meeting in December 1980, to discuss how KPRO data could be used in CME programming. This meeting laid the groundwork for future discussions on this subject. At the March meeting of the Committee, KPRO staff provided a more detailed example of what material could be made available. Further study was given to this concept, but it was the final decision of

the Committee that the data provided did not represent a broad based population, but was selective. Also, there were too many variables and inconsistencies in the data base. Another deterrent concerned the cost of a computer run which would be expensive. In addition, it was concluded that these efforts would be duplicative, as hospital audit committees currently do this type of review.

I would like to thank the Committee members for their assistance in conducting the numerous site surveys and co-sponsorship reviews. Access to quality CME programs in Kentucky is increasing each year. Even with the return to voluntary rather than mandatory programs, nationally, there is still a notable increase in the number of physicians obtaining CME.

Stuart Graves, M.D., Chairman

RECOMMENDATION:

1. The Committee recommends discontinuing the Voluntary Registration of CME Activity, as annually requested of the membership.

Recommendations, Reference Committee No. 2:

The Reference Committee reviewed the Report of the Continuing Medical Education Committee and recommends that Recommendation No. 1 be adopted.

Report of the Cancer Committee

The Kentucky Medical Association Cancer Committee did not hold a formal meeting during the 1980-81 Associational year. Several of our members are actively involved in developing Regional Cancer Centers in Kentucky and we can be immensely proud of their leadership and accomplishments.

In order to keep all members fully apprised of the progress of the Regional Centers in Lexington and Louisville, I have requested that two of our esteemed Committee members, Laman A. Gray, Sr., M.D., and Yosh Maruyama, M.D., submit a report to be included with the Final Report of the Cancer Committee. We hope you find these reports interesting and informative, and that they bring to full realization the outstanding work being done in Kentucky in the field of cancer research and treatment.

Report of the James Graham Brown Cancer Center

The James Graham Brown Cancer Center in Louisville invites all members of the Kentucky Medical Association and their families to visit the Center during the meeting of the Kentucky Medical Association. Guides will be available throughout each day to escort and show all of the facilities of the Center to the medical profession. This unusual new building will be complete and all treatment facilities should be in place by that time.

The original thrust and purpose of the building of the Cancer Center was to enlarge the inadequate space of the widely used Center. This became clear at the time that the American Cancer Society, Kentucky Division, voted in 1976

to donate a \$600,000, 20 million Volt treatment machine to the Center.

With further consideration, it appeared logical to increase the Center to include Medical Oncology with chemotherapy, especially since it has become so widely used, and to include the Research Programs in the University of Louisville Medical School, in order that they might be brought together for greater efficiency and productivity.

The building contains a large area for the evaluation of a patient who may be referred to the Center by his or her physician. The primary purposes of the Cancer Center are to confirm the diagnosis, determine the extent of the disease, propose treatment planning and recommend definitive treatment. Physicians who are specialists in the various areas will see each patient as may be indicated.

After diagnosis, the referring physician will receive a report; then the patient and the referring physician shall approve where and whom they desire to administer treatment. Patients will receive chemotherapy, radiation therapy or have the advice for operations.

The training of postdoctoral Fellows and Residents will represent an important mission of the Cancer Center. Undergraduate student teaching and the instruction of paramedical personnel will be emphasized. Regular conferences at the Center will be available for physicians. It is intended that this will become the intellectual home for cancer care in this area of the State.

The quality of diagnosis and treatment of cancer in this facility will be first class. It is also clear to the Board of Directors of the Regional Cancer Center Corporation that the quality of medical care in this State is at a very high level. By no means is there any intent to deprecate the general high level of achievement in the diagnosis and treatment of cancer. The James Graham Brown Cancer Center does not propose to represent the only first class area for treatment.

Recently the chief Consultant to the Cancer Center, Doctor Albert Owens, Jr., Director of the Johns Hopkins Cancer Center, called this building "the jewel of the Medical Center in Louisville." We hope you will agree.

Laman A. Gray, Sr., M.D.

President

Regional Cancer Center Corporation

Report of the McDowell Cancer Network

The past year has been an eventful one for the Network. While comprehensive cancer centers throughout the country have experienced extensive setbacks resulting from their dependence upon Federal support for their operations, the McDowell Network has made great strides. Soon after the resignation of the Executive Director of the Network, Doctor Otis Singletary, President of the University of Kentucky, appointed D. Kay Clawson, M.D., as Acting Executive Director. At the same time, relationships between the University of Kentucky Medical Center and the Network were clarified. An Interim Management Team was appointed by Doctor Clawson to assist him until a new Executive Director is appointed. Members of the Interim

Management Team are as follows:

Mary Sue Coleman, Ph.D., Acting Director for Basic Research

John R. Vannagell, M.D., Acting Director for Clinical Affairs

Leonard Heller, Ed.D., Acting Director for Education and Operations

Tony Goetz, Acting Director for Planning and Development.

The Ephraim McDowell Cancer Research Foundation, Inc., has received approval from the University to construct a new Cancer Center immediately adjacent to the present University of Kentucky Hospital. The Foundation has employed an architectural planning firm to design a phased building program of approximately \$19 million. The first phase of this program is slated for construction in the Spring of 1982 and will include the administrative, educational and outreach efforts of the McDowell Network including the Cancer Hopeline and Cancer Learning Center as well as officers for the Foundation. Included will be a small clinical component of approximately 25 beds. Either in the actual building or in close juxtaposition to the building will be a neutron therapy suite. To the extent possible, the cancer center will utilize existing support services of the University Hospital.

Later phasing of the building will include research laboratories and additional clinical space if needed. The Center is planned as a resource for patients and their physicians throughout Central and Eastern Kentucky. It is anticipated that many physicians throughout the State will apply for and receive admitting privileges and will participate in case conferences and educational activities coordinated by the Center.

More than \$5 million in private gifts have already been received toward the goal of \$19 million.

In March 1981, a search committee for an Executive Director was appointed by Doctor Singletary. Doctor J. William McRoberts is chairing this Search Committee whose members include Doctors John Cronin, Yosh Maruyama, John Thompson, Warren Proudfoot, Harry Kostenbauder, Thomas Toszman, Roger Laine, Mr. David Schmauss and Mr. J. Ed McConnell. Interest in the position has been expressed by several well known clinicians and researchers and it is anticipated that a decision on the new Executive Director will be made in the Fall of 1981.

Yosh Maruyama, M.D.

Board of Directors

Ephraim McDowell Cancer Network

All of us can be extremely proud of the progress and development of these centers. We can look to the future with great expectation as medicine continues to make inroads solving the mysteries and debilitating threats of Cancer on all of our lives. As members of the medical profession it is incumbent upon each of us to participate in bringing to fruition the construction and full utilization of these monuments of hope to all of our citizens.

P. Raphael Caffrey, M.D., Chairman

Recommendations, Reference Committee No. 2:

Reference Committee No. 2 reviewed the Report of the Cancer Committee. In its review of the report, the Committee considered additional information it received from a Delegate about the construction of a Northern Kentucky Cancer Treatment Center located at St. Luke Hospital in Ft. Thomas. Based on this information, together with that presented in Report No. 15, the Committee recommends that the KMA Cancer Committee include representatives from Northern Kentucky as a channel of input from that part of the state. The Reference Committee recommends that Report No. 15 be filed.

Report of the Hospital Committee

Pursuant to the passage of Resolution D, Unified Hospital Inspections, the Hospital Committee met to discuss this matter and make recommendations to the Board of Trustees. In attendance at this special meeting were representatives of KMA, the Kentucky Hospital Association and the Department for Human Resources. As a result of this meeting, a special report has been prepared by the Division of Licensure and Regulation of DHR and submitted formally over the signature of the Secretary.

The Committee is keenly aware that this special report is not dispositive of the issue of Unified Hospital Inspections. For this reason, additional activity regarding questions raised by that document is anticipated. The report has been circulated to representatives of various interested groups, and their input will be used to assist in the formulation of future policy.

The Hospital Committee also reviewed, at the request of the Board, a document entitled "Kentucky Medical Record Legal Guide," which had been referred to KMA by the Kentucky Medical Record Association for review and possible KMA endorsement. The Committee found this document to be well-drafted and informative. However, because the Guide was so extensive in its coverage of certain areas, it was the Committee's fear that this might later be interpreted as something more than a "guide." Specifically, where certain procedural steps are outlined in detail, and for whatever reason an individual would fail to adhere to that procedural schematic, the Committee was concerned that he or she might be subjected to liability for such failure. The Committee did feel that the guide was an admirable resource document and that there were certain disclaimers set forth within its preface which might serve to eliminate a portion of the Committee's concern. However, the Committee continued to maintain some reservations and recommended to the Board that KMA not endorse this document. A further recommendation was made that the term "legal" be removed from the title of the document in order to obviate any inference that the text is anything more than a guide. The KMA Board of Trustees endorsed the recommendation of the Hospital Committee noting that the guide was a most notable working document.

As Chairman, I would like to take this opportunity to thank the members of the Hospital Committee for their participation in this KMA activity.

Royce E. Dawson, M.D., Chairman

Recommendations, Reference Committee No. 2:

Reference Committee No. 2 agrees with the content of the Report of the Hospital Committee and recommends that it be adopted. However, the Committee recommends further that the issue of unified inspections continue to be pursued and that the Hospital Committee should serve as liaison on behalf of KMA with the Kentucky Hospital Association and the Kentucky Department for Human Resources.

Report of the Emergency Medical Care Committee

The Emergency Medical Care Committee met November 19, 1980, to plan the Eleventh Annual KMA Emergency Medical Care Seminar, which the Committee presented on June 9-11, 1981, and to get a status report on Emergency Medical Services in the State of Kentucky.

The Committee continues its interest in Kentucky's state of preparedness should there be a nuclear accident. There are five plants bordering Kentucky which use or will use nuclear power and 40 counties within the state in which physicians could have the responsibility for patients with radiation contamination. Of perhaps even greater concern is the amount of radioactive material routinely transported within Kentucky by truck and rail.

The Kentucky Disaster and Emergency Services Department is the state agency which would be responsible for coordinating activities in the event of any type of accident involving contaminated materials. The Committee met with officials of that agency and discussed being of assistance in three specific areas; triage, physician preparedness and hospital readiness. We learned that the Joint Commission on Accreditation of Hospitals requires a hospital to have a plan for receiving radiation patients; however, it is doubtful that many hospitals have a separate room to use for such patients. The Committee agreed that it might be appropriate to try to enhance physician awareness of the unique problems that would arise in an accident involving nuclear materials, perhaps through the *Journal* and Emergency Seminar. We noted that a discussion of the Three Mile Island emergency was a part of the KMA Scientific Program in 1980. The Committee will continue to maintain liaison with the Kentucky Disaster and Emergency Services Department in this area.

The Committee also reviewed the Resolution M which was passed by the House of Delegates in 1980 calling for the continuation of regional poison control centers in place of a statewide center. [It was the feeling of the Committee that while some regional poison control centers in Kentucky are excellent, there are some parts of the state where information on poisonous materials is minimal. As a result,

the Committee feels that there is a real need for a statewide poison information center where up-to-date toxicology information could be centralized. Since last year's Annual Meeting, a statewide center has been established at Norton-Children's Hospital in Louisville. The Center has a 24-hour toll-free number, a full-time physician in charge of the Program, and is staffed around the clock by qualified physicians and pharmacologists. The role of the Poison Center is primarily to provide information on toxic substances as opposed to treating patients. The Committee is hopeful that the House of Delegates will reconsider the position taken on this issue last year.]

The Committee also heard a report on the status of Emergency Medical Services in Kentucky by Mr. Chris Smith, Director of the Emergency Medical Services Branch of the Department of Human Resources. Mr. Smith noted that funding for EMS regions has been reduced and that the only funds available in Kentucky now are those appropriated by the Kentucky General Assembly which are to be used for personnel salaries and purchase of vehicles. Because of budget cuts, ambulance services will have to be funded and supported by local government. He noted that the state is relaxing regulations on ambulance services in order for counties to be able to provide minimum levels of care. In addition, the state is working toward a convalescent transportation system which would use minimally-trained personnel and minimally equipped vehicles instead of ambulances when indicated. Mr. Smith stressed that the Department for Human Resources will continue its commitment to EMS in Kentucky even in the face of budgetary problems.

A considerable amount of the Committee's energies were again spent on the development of the KMA Emergency Medical Care Seminar. The program continues to be co-sponsored by the Kentucky Department for Human Resources Emergency Medical Services Branch, the Kentucky Hospital Association, the Kentuckiana Chapter of the Emergency Department Nurses Association, the American College of Emergency Physicians, and the Committee on Trauma of the Kentucky Chapter, American College of Surgeons. The program was held in Louisville, June 9-11, 1981, and a record 648 people registered.

The program was a combination of individual lectures and several simultaneous "hands-on" workshops. The Basic Life Support Program, taught by the American Red Cross, was again available, although participation was down this year. It appears that CPR is now widely available throughout the state which may be the reason for the decline in participation this year. However, a number of individuals passed their yearly recertification examination in CPR which was also given during the meeting.

The meeting this year was expanded to two and one-half days and an afternoon at Churchill Downs was made available to the participants. This seemed to go over extremely well and 250 attendees participated in the "Day at the Races" on Thursday afternoon.

The program is accredited for continuing education by the American College of Emergency Physicians, the National Registry of EMTs, the American Medical Association, the

Kentucky Academy of Family Physicians and the National Emergency Department Nurses Association.

The Committee is indebted to the physicians from around the state who continue to give so freely of their time to come and serve as faculty for the program. The individuals who lecture and preside over the meeting receive no reimbursement for their participation or for their expenses in traveling to and from the meeting. Were it not for the generosity of these individuals, it would be impossible to present a program of this caliber for such a low registration fee. The small fee charged by the Committee covers the cost of meals and other incidental expenses and continues to allow many people to attend a quality program for a very small amount of money.

The Committee recommends that the Seminar be held again next year with the Emergency Medical Care Committee as the coordinating agency. The members of the Committee have again contributed a considerable amount of time and expertise this year for which I am extremely grateful.

E. Truman Mays, M.D., Chairman

RECOMMENDATIONS:

1. The Committee recommends that the Emergency Medical Care Seminar be held again next year with the Emergency Medical Care Committee as the coordinating agency.
- [2. It was the feeling of the Committee that while some regional poison control centers in Kentucky are excellent, there are some parts of the state where information on poisonous materials is minimal. As a result, the Committee feels that there is a real need for a statewide poison information center where up-to-date toxicology information could be centralized. The Committee is hopeful that the House of Delegates will re-examine the position taken on this issue last year.]

Recommendations, Reference Committee No. 2:

The Reference Committee reviewed the Report of the Emergency Medical Care Committee, with the exception of Paragraph 1 on page 17.2, beginning with the second sentence, and Recommendation #2, which were referred to Reference Committee No. 5. Reference Committee No. 2 recommends that Recommendation No. 1 be adopted.

Mr. Speaker, I recommend the adoption of the report of Reference Committee No. 2 as a whole.

I would like to thank the other members of the Committee: Victor F. Duvall, M.D., Clarkson; Thomas M. Jarboe, M.D., Lexington; Henry W. Post, M.D., Louisville; and Fred A. Stine, M.D., Highland Heights, for the time spent in listening to testimony and to those who made comments. A special thanks to Mrs. Denise Merrell for her secretarial assistance.

REFERENCE COMMITTEE NO. 2

John W. Kraus, M.D., Paducah, Chairman
Victor F. Duvall, M.D., Clarkson
Thomas M. Jarboe, M.D., Lexington
Henry W. Post, M.D., Louisville
Fred A. Stine, M.D., Highland Heights

• Editorial Note: Unless otherwise indicated, the Reference Committee action on each report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

Reference Committee No. 3

Don E. Cloys, M.D., Richmond
Chairman

Reference Committee No. 3 considered the following reports and Resolutions:

19. Report of the Maternal Mortality Study Committee
20. Report of the Committee on National Legislative Activities
21. Report of the Committee on State Legislative Activities
22. Report of the Committee on Physicians' Health
23. Report of the Committee on Long-Term Care
33. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports—Recommendation #1, *only*
38. KMA-Kentucky Nurses Association Joint Practice Committee—Paragraph 2 on Page 38.2, and Recommendation #2, *only*
Resolution A—Physicians' Assistants (Board of Trustees)
Resolution B—Commissioner, Bureau for Health Services (Board of Trustees)
Resolution C—Collateral Compensation (Harlan County Medical Society)
Resolution E—Non-discrimination in Serving as Certificate of Need Board Chairman (Harold L. Bushey, M.D., Chairman, Committee on HSAs)
Resolution F—Medical Malpractice—Attorneys' Fees (McCracken County Medical Society)
Resolution G—Eye Care Legislation (Fayette County Medical Society)
Resolution L—Adequate State Support for Indigent Care (Jefferson County Medical Society)
Resolution N—Statewide Medical Examiner Program (G. R. Nichols, II, M.D., and Frank R. Pitzer, M.D.)
Resolution P—Therapeutic Eye Care Legislation (Pennyrile Medical Society)
Resolution R—Referral of Patients with Diseases of the Eye to Physicians (Pennyrile Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 3 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

19. Report of the Maternal Mortality Study Committee—filed
21. Report of the Committee on State Legislative Activities—filed
23. Report of the Committee on Long-Term Care—filed

33. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports—Recommendation # 1, *only*—adopted
38. KMA-Kentucky Nurses Association Joint Practice Committee—Paragraph 2 on Page 38.2, and Recommendation #2, *only*—adopted

Reference Committee No. 3 would like to express its appreciation to the authors of the reports which have been filed or adopted for the time and effort spent in gathering this information for the House of Delegates.

Report of the Maternal Mortality Study Committee

The Maternal Mortality Study Committee receives information concerning maternal deaths and studies these deaths in detail. Two meetings were held during the year, one in the fall, September 19, 1980, and again in the spring, April, 1981. Appended to this report is a tabulation of the maternal deaths since 1966.

Year	Deaths	Rate	No. White	No. Rate Non-White	Rate	
1966	34	5.8	30	5.6	4	8.0
1967	21	3.6	20	3.8	1	2.0
1968	15	2.7	12	2.3	2	4.0
1969	17	3.0	13	2.4	4	7.8
1970	22	3.7	21	3.8	1	1.8
1971	20	3.3	15	2.7	5	8.9
1972	22	3.6	17	3.3	5	5.8
1973	16	3.0	12	2.5	4	8.3
1974	15	2.8	10	2.1	5	10.3
1975	15	2.7	11	2.2	4	8.0
1976	13	2.4	5	1.0	8	15.4
1977	13	2.1	8	1.5	5	9.1
1978	8	1.4	6	1.2	2	3.5
1979	7	1.2	5	.9	2	3.4
1980	13	*				
1981**						

*The Maternal mortality rate for 1980 was not available at the time this report was prepared

**Information for 1981 maternal deaths is currently not available

1976:	13 Maternal Deaths/Causes:	
	Pulmonary embolism	3
	Amniotic fluid embolism	1
	Brain tumor	2
	Anesthetic death	3
	Drug overdose—fetus less than 20 weeks	1
	Abruptio placenta	1
	Sickle cell crisis	1
	D.I.C.	1

1977:	13 Maternal Deaths/Causes:	
	Abruptio placenta with respiratory distress	1
	Artificial mitral valve	1
	Pulmonary embolism	3
	Ruptured ectopic	1
	Tubal ligation & appendicitis with peritonitis	1
	Ruptured dissecting aneurysm	1
	Sickle cell anemia	1
	Septic shock	1
	Home delivery	1
	D & C for incomplete abortion	1
	Abortion for partial IV congenital septum	1
1978:	8 Maternal Deaths/Causes:	
	Pulmonary embolism	2
	Endotoxic shock	1
	Cardiopulmonary arrest	1
	Hemorrhage with low lying placenta	1
	Anesthetic accident	1
	Ruptured splenic aneurysm with hemorrhage	1
	Pneumonia	1
1979:	7 Maternal Deaths/Causes:	
	Cardiopulmonary arrest	3
	Auto accident—patient hit by car	1
	D.I.C. with toxemia	1
	Ruptured tubal pregnancy with hemorrhage	1
	Postpartum hemorrhage from C-section	1

It is the opinion of the Committee that maternal mortality has decreased markedly in the last years. This is due to greater expertise on the part of the physician.

We have had little or no success in having attending physicians attend the meetings of the Maternal Mortality Committee.

John W. Greene, Jr., M.D., Chairman

Report of the Committee on State Legislative Activities

The 1982 General Assembly is currently being fueled with legislative proposals generated by the Interim Committee System. KMA has maintained a keen awareness of this activity and has attempted to be even more involved during this Interim period. The combination of inflation, recently imposed budgetary constraints, and the desire of non-physician personnel for expansion of their role within the health care arena produces a highly volatile mixture. Nevertheless, such is the prevailing climate, and there is little to indicate that it will change dramatically during the course of the regular Session.

On a broad scale we anticipate that 150-160 bills, or roughly 12% of the total legislation introduced, will be health related. These figures serve to illustrate the nature of KMA's endeavor. Of necessity we deal with a vast array of legislation, while other groups may concentrate all their efforts on one or two specific bills. The end result is that organized medicine is placed in a defensive posture with ever increasing frequency.

As I have indicated to you previously, while the Committee, KMA leadership and staff make every effort to contact the 138 legislators in Frankfort, the most effective lobbying is carried out by KMA members in their local communities. Many times an informed discussion with an officeholder will eliminate doubts he may have about the propriety of a particular legislative position.

Several words of caution, however. If you are going to "get involved," be sure you also "get informed." Many bills change from day to day, even hour to hour, and our official position must be altered accordingly. Therefore, be sure to contact a member of the Committee or staff for a briefing on legislation of interest before you approach members of the General Assembly.

A partial listing of matters of specific interest to KMA during the upcoming session would include proposals offered under the guise of "pro-competition" legislation, expansion of non-physician practice through legislative fiat rather than education and training, changes in the primary health care delivery system, brain death legislation, changes in generic drug legislation, mandatory reimbursement of non-physicians under health insurance, and changes in the Medicare-Medicaid laws.

Some legislative positions have already been established in response to proposals pre-filed during the Interim. Shortly after the November election the Committee will meet to review these positions and to react to new or revised legislation. At that time the Committee will also evaluate the suggestions and recommendations of various specialty societies regarding legislation which they feel will impact them directly.

I once again offer my deep appreciation to the members of the Committee and to the Key Men whose efforts have proven so valuable over the years. Without question, the call for assistance will go out again in 1982. I trust that your personal interest and commitment will remain steadfast, and that the end result will be the continued delivery of quality health care within the Commonwealth.

Carl Cooper, Jr., M.D., Chairman

Report of the Committee on Long-Term Care

The Committee on Long-term Care was appointed as the result of interest expressed by the long-term care community. The purpose of the Committee was to discuss its views of mutual concern to medicine and nursing homes. Three representatives of KMA met with representatives of the Kentucky Nursing Home Association.

One problem perceived both by physicians and nursing home administrators is obtaining, retaining and determining the duties and responsibilities of medical directors in skilled nursing facilities. In skilled nursing facilities state and federal regulations require a medical director, but in larger areas it is sometimes difficult to retain one. From the standpoint of the facility, administrative and economic questions are not difficult to overcome. They seek medical director input, not only for patient recertification, but for influence on the medical care delivery in the facility, as well as care

delivery education for other facility personnel. From the standpoint of the physician, again particularly in large areas, there is some frustration related to the requirement that patients be recertified periodically when medical visits are not necessary. In this situation, it was the feeling of the group that nursing homes may be being used to "police" physicians. It was suggested that some mechanism might be considered where a pool of physicians could be created in a given community to serve nursing home patients.

Another area of mutual concern was the requirement for medical records. While the facility is held responsible by regulation for holding and maintaining medical records, only the physician can complete them. This is further influenced by a disparity on occasion between state and federal regulations to the point where inspection of records is erratic. This was seen as another area where cooperation might result in resolution.

A major item of discussion was the current uncertain status of nursing homes in view of recent moves made by the Medical Assistance Program, and quite a bit of information was disseminated. In skilled nursing facilities, 76% of the patients are referred directly from hospitals, and only 6% come from the community directly. This is mainly because in the case of Medicare patients, there is a requirement that they be hospitalized before admission to a skilled nursing facility.

In intermediate care facilities, 49% of the patients come from hospitals, 30% come from other levels of care within the same facility or are transferred from other facilities, and 18% are admitted from the community. In Kentucky 80% of all nursing home patients fall in the intermediate care category. The nursing home representatives indicated that this was a somewhat falsely created trend. There is little difference between intermediate care and skilled care, but a large difference between personal care and skilled care. The category of intermediate care was essentially a bureaucratic creation, which has become falsely inflated. There is influence indirectly because of bureaucratic requirements to change patients from the personal to the intermediate categories as a means of providing monitoring and domiciliary services to people who may not really require intermediary care. Personal care for the most part is a social category, but it has evolved into a medical category because of regulatory requirements.

This has increased statewide utilization of intermediary care beds by 600% and has resulted in an obvious cost problem. At the same time, facilities have little control over category changes by patients.

Related to this, obviously, is the problem of facility reimbursement which is \$32.90 per patient per day, as opposed to a home health visit, which is reimbursed at a rate of \$35.00.

A number of other problems were considered which mutual attention by both groups may relieve, and it was agreed to continue these discussions at future meetings.

Dwight L. Blackburn, M.D., Chairman

Report of the Committee on School Health, Physical Education,

Kentucky Medical Association • December 1981

and Medical Aspects of Sports— Recommendation No. 1 Only

RECOMMENDATION:

1. The Committee recommends that the following resolution supporting the athletic trainer concept and continued support of programs to train additional trainers be encouraged with the adoption of the following resolution to be submitted to the 1982 General Assembly:

WHEREAS, it has been verified that many long-term, sports-induced disabilities can be reduced or prevented by proper and timely on-site treatment, and

WHEREAS, the availability of qualified medical care at contact sporting events has become vital, and

WHEREAS, the welfare of the student athletes of the Commonwealth is of primary concern to all citizens, and

WHEREAS, the Kentucky General Assembly has affirmed this importance by enacting legislation providing for the certification of athletic trainers, now therefore be it

RESOLVED, that the Kentucky General Assembly be encouraged to express continued support of the concept of the athletic trainer program by means of a concurrent resolution drawing the attention of the Department of Education, educators and school administrations to consideration of all possible approaches to effect the trainer program, and be it further

RESOLVED, that the Kentucky General Assembly be further encouraged to monitor the status of the athletic trainer program on an ongoing basis and provide fiscal assistance when feasible.

Report of the KMA— Kentucky Nurses Association Joint Practice Committee— Second to Last Paragraph and Recommendation No. 2 Only

This Committee recommends that the Kentucky Medical Association continue to oppose efforts by the legislature, state or federal government to promote the concept of Independent Practice and the prescribing of drugs by nurses.

RECOMMENDATION:

2. This Committee recommends that the Kentucky Medical Association continue to oppose efforts by the legislature, state or federal government to promote the concept of Independent Practice and the prescribing of drugs by nurses.

End of Consent Calendar Items

Report of the Committee on National Legislative Activities

The Committee on National Legislative Activities consists of Key Men to each member of Kentucky's Congressional delegation. The Committee does not meet as a group, yet functions quite effectively through individual and continuous contact with Kentucky's Senators and Representatives.

Kentucky's legislative input is recognized on the national level, partially because of the valuable relationships each Key Man has established, which are expressed by the interest and exhibited by the great assistance each has given in making regular, as well as urgent, contacts when needed.

Significant legislative proposals were initiated this year following the election of President Reagan and a Republican majority in the Senate. The most notable change resulting from the new conservative majority was reflected in the budget revision package for FY 81, and the budget reconciliation proposal for FY 82. The first issue was expressed by simple rescission of funds already appropriated for government programs, including PSROs, health planning, and public health programs. The second issue will have far-ranging effects because a number of programs will be eliminated in future years, and states will receive proportionate grants for federally backed health programs in block form. Obviously, much of KMA's work this year was directed to both of the budget packages.

Timing of the budget votes was fortunate in that consideration of them occurred the same week as KMA's annual Washington Congressional visit. The members of Kentucky's group were able to call on their Congressmen individually and urge their votes of the budget package. While the most favored version of the budget proposal, offered by Representative Phil Gramm (D-TX) and James Broyhill (D-NC), did not ultimately pass, the result was a budget reconciliation that was workable. The administration's proposal won out over both the Broyhill-Gramm bill and the proposal of the House Commerce Committee.

In the health area, items at issue were such things as continuation of modified national health planning, as opposed to phase out and repeal; discontinuation of funds for PSROs; and mandatory hospital rate setting programs. The administration package addressed each of these issues in a manner which, again, was acceptable to organized medicine.

Several contacts were made with Congressmen on a variety of other issues throughout the year relating to health planning, primarily, and as a result of the changes that are coming about from the new budget, KMA has received requests from Kentucky's Congressmen to provide ongoing input on these matters.

KMA's annual Congressional visitation and dinner, as mentioned, were held on June 22-23, beginning with a briefing by the AMA Washington Office on the 22nd, visits to Congressmen in their offices on the 23rd, and culminating with a banquet on the evening of the 23rd. This annual affair has become a routine, but it's felt to be worthwhile. KMA's approach has always been to consider this

an informal function where no high pressure discussions take place. For the most part, it's a means of emphasizing the ongoing close interest and awareness of Kentucky physicians of Washington activities. Additionally, it provides an opportunity to meet with Congressmen in a low key atmosphere.

This visit and, coincidentally, all organized medicine's legislative activities, are coordinated superbly by the AMA Washington Office. The AMA's legislative efforts are acknowledged as being some of the most effective in Washington, thanks to an excellent staff and, of course, the support of each state's Key Men nationally. The tandem work of AMA lobbyists and state support through Key Men has enabled organized medicine to consistently exert significant influence in national circles. This work is obviously bolstered by the efforts of state political action committees and AMA's PAC. Regardless of the regular work involved, all lobbying efforts suffer without strong PAC support.

While the political climate in Washington has, indeed, taken a new face since the last general election, physicians should be cautioned not to become complacent and overly optimistic. Already surfacing are some administration proposals which are not acceptable to our profession and in addition to that, several bills have already been introduced in Congress with which the profession will strongly disagree. All of us should be reminded that it is frequently more difficult to oppose legislation which has been sponsored by our "friends" than it is to oppose legislation from other sources. The so-called "competition bills" sound bland enough, but I can assure you many of the proposals contain sections with which the profession will strongly disagree.

While they receive very little recognition and their work is accomplished basically by telephone and weekend personal contacts, Kentucky's Key Men have done an excellent job this year, and I feel should be highly commended. For the information of the membership, they are: Wally Montgomery, Paducah; Jim Baumgarten, Owensboro; Sam Weakley, Louisville; Carl Cooper, Bedford; Don Barton, Corbin; Dave Stevens, Lexington; Terry Wright, Pikeville; and Bill Hall, Owensboro.

Fred C. Rainey, M.D., Chairman

Recommendations, Reference Committee No. 3:

Your Reference Committee has reviewed the information provided in the Report of the Committee on National Legislative Activities and feels this House needs to be more fully informed about the potential impact on the practice of medicine of the so-called federal "competition bills."

Reference Committee No. 3 recommends this report be adopted.

Report of the Committee on Physicians' Health

The Committee on Physicians' Health continues to seek physicians whom it might be able to assist who are addicted to or abuse alcohol and other substances or suffer from

some other impairment to the extent that they are a danger to themselves, their families or their patients.

The Committee continues to monitor on a routine basis approximately 15 physicians that have been referred. The majority of these suffer from substance abuse, although other problems are also manifest.

A major activity of the Committee, however, continues to focus on identifying physicians with impairments. Valid national statistics indicate that at least 10% of any physician population suffers from some sort of impairment that would fall within the purview of this group, yet referrals continue to be sparse. Some efforts undertaken to help identify impaired physicians included routine mailings to hospital chiefs of staff and administrators, voluntary appearance at county medical society meetings by Committee members, regular contact with medical schools and regular publication of the Committee's existence and work in the *KMA Journal*.

Additional efforts have been considered, such as mailings to home addresses of the membership and programs conducted jointly with the Auxiliary to KMA. Unfortunately, all identification efforts have not been successful.

The Committee would like to stress in the strongest terms, again, that it has no punitive or sanctionary authority or intent. The single goal of the Committee is to identify impaired physicians and to work to help them, with rehabilitation as the objective.

The absence of referrals to the Committee can probably be related to a number of causes. One major one may be that the referring source wishes to remain anonymous. The Committee can protect anonymity of referring sources because of the absence of any sanctionary authority, and it should be emphasized that anonymity should not be a large concern. Conversely, the Committee is of the strong opinion that a physician who has an impairment and is not referred to some benevolent, rehabilitation-oriented group, is being harmed more, possibly, than if his impairment is allowed to continue without any attention.

Other Committee activities this year have been directed toward accumulation of material used successfully in other states' impairment programs through medical societies and society auxiliaries, as well as treatment centers. A library of sorts has been developed and information is available to the membership.

Members of the Committee represented KMA at two major seminars this year. One was held in Ohio in March and was attended by interested physicians from the north-central region of the country. The other was the AMA's Third Annual Conference on the Impaired Physician held in Baltimore, Maryland, in late 1980.

The Committee is requesting that its name be changed from the "Committee on Physicians' Health" to the "Committee on Impaired Physicians." This change is recommended because it is felt that this would more closely reflect the Committee's functions, as well as following a trend set by counterpart committees across the country.

The Committee is also planning more direct contact with the membership by means of an exhibit during the KMA Annual Meeting.

If the result of our efforts at case finding become successful, then we would expect that our case load would

become so great that eventually we will need to divide our efforts, possibly developing regional subcommittees to assist the state Committee.

While the Committee's work is very often frustrating and success is not easily measured, it remains committed to helping impaired physicians and the assistance and continued support of the membership and the Auxiliary are urged. I would like to extend my sincere thanks to the members of the Committee for their faithful assistance and human concern.

David L. Stewart, M.D., Chairman

Recommendations, Reference Committee No. 3:

The Reference Committee has reviewed the Report of the Committee on Physicians' Health and appreciates the difficulty in obtaining referrals to the Committee regarding physicians who may be impaired. It is the understanding of this Reference Committee that the name of this Committee has already been changed from the "Committee on Physicians' Health" to the "Committee on Impaired Physicians." While this name change perhaps more closely reflects the Committee's functions, the Reference Committee feels that this title is somewhat inflammatory in nature to all concerned and could perhaps further hamper referrals to the Committee. We, therefore, recommend that the change in the Committee's name be reconsidered.

We recommend that the Report be referred back to the Board of Trustees with the recommendation of Reference Committee No. 3.

Resolution A

KMA Board of Trustees

Physicians' Assistants

WHEREAS, legislation to provide for the certification of Physicians' Assistants has been introduced in each regular session of the Kentucky General Assembly since 1974 without successful result, and

WHEREAS, the medical/social climate has changed significantly since legislative attention was first directed to PAs, and

WHEREAS, recent studies and reports performed by the AMA and the Graduate Medical Education National Advisory Committee have predicted increasing numbers of physicians and have questioned the degree of focus on PAs, and

WHEREAS, KMA has supported the concept of Physicians' Assistants, but recognizes that the PA issue has had a debilitating influence on the effectiveness and credibility of KMA's involvement in legislative debate, now therefore be it

RESOLVED, that KMA should no longer sponsor Physicians' Assistants legislation, and be it further

RESOLVED, that should Physicians' Assistants legislation be introduced in the General Assembly, KMA's position and legislative efforts be determined by the Committee on State Legislative Activities using guidelines already adopted by the House of Delegates.

Recommendations, Reference Committee No. 3:

Your Reference Committee reviewed Resolution A, Physicians' Assistants, introduced by the Board of Trustees. Positive testimony was heard from the President-Elect of the Kentucky Academy of Physicians Assistants. Additionally, physicians who currently employ physicians assistants testified that they were quite satisfied with the work of their PA's. Your Committee feels the continued support from this House of Delegates to the attempts of physicians assistants to become certified should be maintained. It is felt that this end can best be achieved by adopting this resolution.

Reference Committee No. 3 recommends the adoption of Resolution A.

Resolution B

KMA Board of Trustees

Commissioner, Bureau for Health Services

WHEREAS, the medical activities conducted, funded or overseen by the Commonwealth of Kentucky have assumed growing importance and complexity, and

WHEREAS, the changing technologies of medical service delivery, coupled with a radically modified economic atmosphere, demand strong, capable administrative leadership, and

WHEREAS, such leadership can best be exercised by a trained physician who can assure professional guidance and supervision, and

WHEREAS, this professional leadership should be guaranteed by legislative stipulation rather than by periodic bureaucratic attention, now therefore be it

RESOLVED, that KMA should work for and support legislation to require that the Commission of the Bureau for Health Services be a licensed, experienced and qualified physician.

Recommendations, Reference Committee No. 3:

The Reference Committee reviewed Resolution B, Commissioner, Bureau for Health Services, introduced by the Board of Trustees, and recommends that it be adopted.

Resolution C

Harlan County Medical Society

Collateral Compensation

WHEREAS, the high cost of malpractice insurance increases the cost of medical care to the citizens of Kentucky, and

WHEREAS, collateral compensation such as hospital insurance, unemployment insurance, sick pay benefits, etc., is not given consideration in malpractice awards by the juries and courts, and

WHEREAS, collateral compensation is prohibited as admissible evidence in a liability or malpractice case, thus allowing awards where the plaintiff had no expense, and

WHEREAS, the consideration of collateral compensation in malpractice cases would decrease the cost of insurance, thus lowering the cost of medical care, and

WHEREAS, in an effort to decrease the cost of malpractice insurance, now therefore be it

RESOLVED, that the Kentucky Medical Association urge and support legislation that would require the reduction of liability awards after trials by the amount of collateral compensation the victim received (life insurance would be excluded from the compensation that must be considered).

Recommendations, Reference Committee No. 3:

The Committee next considered Resolution C, Collateral Compensation, introduced by the Harlan County Medical Society. Testimony was heard from legal counsel and a number of physicians both for and against this concept. The Committee finds the basic concept acceptable, but agrees that this is not the proper time for adoption and implementation of this resolution. The Committee, therefore, recommends this resolution be referred to the Committee on State Legislative Activities for further study. The advice of Legal Counsel should be sought regarding the feasibility and constitutionality of this concept, and the Committee should report to this House of Delegates on this study before the 1984 Kentucky General Assembly.

Resolution E

Harold L. Bushey, M.D., Chairman, Committee on HSAs

Non-discrimination in Serving as Certificate of Need Board Chairman

WHEREAS, KRS Chapter 216 B, the Kentucky Certificate of Need Law, provides that the Chairman of the Board shall be appointed by the Governor from the consumer members of the Board; and

WHEREAS, such a provision is discriminatory inasmuch as it effectively precludes provider members from serving in the capacity as Chairman; now therefore be it

RESOLVED, that KMA support the elimination from KRS Chapter 216 B of discriminatory language which prevents provider members from serving as Chairman of the Kentucky Certificate of Need and Licensure Board; and be it further

RESOLVED, that KMA express its support for the insertion of non-discriminatory language calling for the appointment of the Chairman of that Board from its membership as a whole.

Recommendations, Reference Committee No. 3:

The Committee next considered Resolution E, Non-discrimination in Service as Certificate of Need Board Chairman, introduced by Harold L. Bushey, M.D., Chairman of the Committee on HSAs, and recommends it be adopted.

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Resolution F

McCracken County Medical Society

Medical Malpractice—Attorneys' Fees

WHEREAS, the Kentucky Legislature responded in 1976 to the dramatic rise in professional liability insurance premiums for Kentucky physicians by passing Senate Bill 248, guaranteeing the acquisition and availability of malpractice insurance and the Commonwealth of Kentucky and promoting the health and general welfare of the inhabitants of this great Commonwealth, and

WHEREAS, the Kentucky Supreme Court determined in *McGuffey vs. Hall* that Kentucky law cannot require all physicians and hospitals to carry malpractice insurance and that committing future tax monies to this fund was unconstitutional, and

WHEREAS, present data indicates a significant increase in frequency and severity of medical malpractice claims despite continued attempts by the Kentucky Legislature and Kentucky physicians to mediate this crisis, and

WHEREAS, continued dramatic increase in liability insurance premiums, ultimately paid by the citizens of Kentucky, will result in drastic increase in the cost of health care services and curtailment of select services, and

WHEREAS, a method is needed which will eliminate litigation lacking in merit and enhance the prompt settlement of meritorious claims, and

WHEREAS, less than one-third of the liability insurance premium dollar actually goes to the plaintiff, and the other two-thirds is devoured by attorneys' fees, and court costs, insurance company overhead, and other friction costs which are endemic to the highly inefficient mechanism under which Kentucky operates its medical malpractice litigation, and

WHEREAS, the issue of liability is a primary issue to be resolved in medical malpractice litigation while the issue of damages is generally the primary issue in other areas of tort litigation, and, furthermore, comparative negligence is rarely an issue in malpractice actions, but is a prevalent issue in other areas of the law, and

WHEREAS, individuals required to pay attorneys' fees to the prevailing party will seriously evaluate the merits of a potential medical malpractice claim, now therefore be it

RESOLVED, that the Kentucky Medical Association urge support for the following proposal to reduce the number of unmeritorious and frivolous lawsuits against physicians.

Section 1. Attorneys' fees in medical malpractice actions. Except as otherwise provided by law, the court shall award a reasonable attorney's fee to the prevailing party in any civil action which involves a claim for damages by reason of injury, death, or monetary loss on account of alleged malpractice by any medical or osteopathic physician, podiatrist, hospital or health maintenance organization; however, attorneys' fees shall not be awarded against a party that is insolvent or poverty stricken. Before initiating such a civil action on behalf of a client, it shall be the duty of the attorney to inform his client, in writing, of the

provisions of this section. When there is more than one party on one or both sides of an action, the court shall allocate its award of attorneys' fees among prevailing parties and tax such fees against nonprevailing parties, in accordance with the principles of equity. In no event shall a nonprevailing party be required to pay to any or all parties any amount in attorneys' fees in excess of that which is taxed against such a nonprevailing party. A party who makes an offer to allow judgment to be taken against him shall not be taxed for the prevailing party's attorney fees which accrue subsequent to such offer of judgment if the final judgment is not more favorable to the prevailing party than the offer. The court shall reduce the amount of attorneys' fees awarded to a prevailing party in proportion to the degree to which such party is determined by the trier of fact to have contributed to his own loss or injury.

Section 2. If any provision of this act or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision of application, and to this end the provisions of this act are declared severable.

Recommendations, Reference Committee No. 3:

The Committee next heard testimony regarding Resolution F, Medical Malpractice—Attorneys' Fees, introduced by the McCracken County Medical Society. Some of the testimony advised that the "Resolved" portion of this resolution is essentially the content of an existing Florida law.

The Reference Committee feels Resolution F has merit and recommends its adoption.

Resolution L

Jefferson County Medical Society

Adequate State Support for Indigent Care

WHEREAS, all citizens deserve access to high quality medical care, and

WHEREAS, the provision of medical care to the indigent is creating a growing burden for urban areas throughout the nation, and

WHEREAS, University Teaching Hospitals most keenly feel the impact of this financial burden, as is evident by this year's \$38 million projected deficit at Boston City Hospital and by the projected \$28 million at Cook County Hospital, and

WHEREAS, the University of Louisville Hospital now faces a \$3 million operating deficit despite \$4,665,000 in combined city and county support which is unique in the Commonwealth of Kentucky, and

WHEREAS, an additional significant amount of indigent care is delivered by private hospitals (up to \$1,000,000 per year in some hospitals),

WHEREAS, Jefferson County has 29 percent of the population of Kentucky but contributes 35 percent of State tax revenues, and

WHEREAS, the new University of Louisville will open in 1982 and will serve the western half of Kentucky, including its indigent population, now therefore be it

RESOLVED, that the Kentucky Medical Association encourage State Legislators to study the statewide problem of indigent care and to seek innovative solutions to assure adequate funding of medical care to all Kentucky residents, as well as the continued financial stability of the State's teaching hospitals.

Recommendations, Reference Committee No. 3:

The Committee considered Resolution L, Adequate State Support for Indigent Care, introduced by the Jefferson County Medical Society, and recommends that the following substitute wording be adopted in place of the existing "Resolved":

"RESOLVED, that the Kentucky Medical Association encourage State Legislators to continue to study the statewide problem of indigent medical care and to assure adequate funding for the continued financial stability of the state's teaching hospitals."

Reference Committee No. 3 recommends the adoption of Resolution L, as amended.

Resolution N

**G. R. Nichols, II, M.D.
Frank R. Pitzer, M.D.**

Statewide Medical Examiner Program

WHEREAS, the Kentucky Medical Association recognizes that a current statewide crisis exists in medical/legal death investigation, and that the Medical Examiner Program has historically been severely under-financed, now therefore be it

RESOLVED, that KMA urge the Kentucky Department of Justice to formulate a legislative plan to improve medical/legal death investigation in the Commonwealth to include appropriate state fiscal support to implement such a plan, and be it further

RESOLVED, that the Association urge the General Assembly to pass enabling legislation to accomplish these goals, which should involve the State medical schools as the primary resource enters for professional services to carry out this act.

Recommendations, Reference Committee No. 3:

The Committee next considered Resolution N, Statewide Medical Examiner Program, introduced by G. R. Nichols, II, M.D., and Frank R. Pitzer, M.D. Interesting and informative testimony was heard from several physicians, including the State Medical Examiner.

The Committee recommends the adoption of this resolution.

Resolution G

Fayette County Medical Society

Eye Care Legislation

WHEREAS, optometrists are non-medical practitioners and are not licensed physicians (medical doctors), and

WHEREAS, the care provided to persons with visual problems should be of the highest quality and provided only by medically trained persons, now therefore be it

RESOLVED, that the Kentucky Medical Association oppose the adoption by the General Assembly of the Commonwealth of Kentucky of any legislation which authorizes personnel other than physicians to engage in the treatment of eye disease or to prescribe drops or other medications for persons with visual problems or symptoms of eye disease, and be it further

RESOLVED, that the Kentucky Medical Association seek legislation by the General Assembly of the Commonwealth of Kentucky requiring the referral to physicians, including ophthalmologists, of any person identified as an individual with suspected eye disease or medical conditions involving pathology of the eyes.

Resolution P

Pennyrile Medical Society

Therapeutic Eye Care Legislation

WHEREAS, the care provided to persons with visual problems should always be of the highest quality and provided only by medically trained persons who possess special knowledge in the treatment of diseases and visual problems of the eye, now therefore be it

RESOLVED, the Kentucky Medical Association, voices strong opposition to any legislative proposal submitted to the General Assembly of the Commonwealth of Kentucky which authorizes anyone, other than physicians, to treat visual problems of the eye by therapeutic prescription of drops or any other medication.

Resolution R

Pennyrile Medical Society

Referral of Patients with Diseases of the Eye to Physicians

WHEREAS, non-physician practitioners (optometrists) have obtained the right to use medications in the diagnosis of eye problems, and

WHEREAS, the physicians of this state recognize the use of **both** therapeutic and diagnostic drugs by non-medical practitioners as being detrimental to the ocular health of the people of the state of Kentucky, and

WHEREAS, the care provided to persons with visual problems should be of the highest quality and provided only by medically trained persons, now therefore be it

RESOLVED, that the Kentucky Medical Association seek legislation by the General Assembly of the Commonwealth of Kentucky requiring the referral to physicians, including ophthalmologists, of any person identified as an individual with suspected medical or surgical eye disease or medical conditions involving pathology of the eyes.

Recommendations, Reference Committee No. 3:

Reference Committee No. 3 next heard combined testimony for Resolution G, Eye Care Legislation, introduced by the Fayette County Medical Society; Resolution P, Therapeutic Eye Care Legislation, introduced by the Pennyriple Medical Society; and Resolution R, Referral of Patients with Diseases of the Eye to Physicians, introduced by the Pennyriple Medical Society.

The Reference Committee feels that the issues expressed in Resolution G are individually expressed in Resolutions P and R, and Reference Committee No. 3, therefore, recommends Resolution G be rejected.

The Reference Committee recommends the adoption of Resolution P.

While Reference Committee No. 3 strongly agrees with the sentiments expressed in Resolution R, there is some concern over the legality of the actions proposed and the scope of such proposed legislation. There is further concern that adoption of this resolution would be interpreted as legitimizing the diagnostic ability of a group of non-physicians whose range of abilities and knowledge is quite variable. Reference Committee No. 3 therefore recommends the rejection of Resolution R.

The Fayette County Medical Society proposed the following Substitute for Resolution R which was adopted by the House:

RESOLVED, that the Kentucky Medical Association seek legislation by the General Assembly of the Commonwealth of Kentucky requiring the referral by non-physicians to physicians of any person identified as an individual with suspected medical or surgical eye disease or medical conditions involving pathology of the eyes.

One member of the Reference Committee did not agree with the majority and has filed a Minority Report on this subject, which is attached.

(The author of the Minority Report, Garner E. Robinson, M.D., Ashland, stated that he supported the Substitute for Resolution R and therefore did not wish to introduce his Minority Report.)

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 3 as a whole as amended.

Mr. Speaker, I want to personally thank the members of the Reference Committee who have attempted to assist this House of Delegates to try to formulate equitable policies on some very worthy, but controversial, issues. Members of the Committee are Keith E. Ellis, M.D., Benton; William B. Monnig, M.D., Erlanger; Lynn L. Ogden, M.D., Louisville; and Garner E. Robinson, M.D., Ashland. I also want to personally thank Mrs. Doris Crume for her assistance in the preparation of this report.

REFERENCE COMMITTEE NO. 3

Don E. Cloys, M.D., Richmond, Chairman
Keith E. Ellis, M.D., Benton
William B. Monnig, M.D., Erlanger
Lynn L. Ogden, M.D., Louisville
Garner E. Robinson, M.D., Ashland

Minority Report of Reference Committee No. 3

The minority report, filed by Garner E. Robinson, M.D., of Ashland, recommends the adoption by the House of Delegates of Resolution R, Referral of Patients with Diseases of the Eye to Physicians, introduced by the Pennyriple Medical Society.

Mr. Speaker, the minority recommends adoption of the minority report.

Garner E. Robinson, M.D., Ashland

Following a short break, Thomas R. Watson, M.D., Louisville, took the podium as Chairman of the KEMPAC Board of Directors to present the annual KEMPAC Board report which follows:

Mr. Speaker, fellow delegates, and guests,

A Chairman of the KEMPAC Board of Directors, thank you for giving me the opportunity to report on KEMPAC activities this past year.

The seminar on Monday was well attended. Our thanks to all of you who attended.

As many of you know, the courts have now ruled that KEMPAC and AMPAC are affiliated which limits the contribution to \$5,000 for a candidate for each election. The portion of your contribution to AMPAC is distributed on the national level and the portion for KEMPAC is primarily used in state races.

The membership in KEMPAC/AMPAC is 940, including 40 sustaining physicians. The physicians who are involved are working very hard in your best interest, but we need all of you.

The KEMPAC booth is set up in the lobby near the headquarters office here in the Convention Center. We invite you to stop by and make your contribution. You can pay by Visa or Master Charge if you don't have your checkbook with you. Sustaining membership is \$100 and family membership is \$75.

In 1980, as in past years, the KMA House of Delegates reaffirmed its belief in the objectives of KEMPAC and AMPAC and recommended 100% participation by doctors and spouses. It further recommended a vote of endorsement and encouragement of the KEMPAC organization to continue its worthwhile political efforts on behalf of medicine.

I recommend that you reaffirm this endorsement and approve KEMPAC billing with the KMA dues billing. I wish to ask that you include your contribution when sending in your other dues. This is your organization and you must support it.

1982 will be KEMPAC's 20th year. We urge you to become involved in your political arm.

Let's make our 20th year the best ever.

On behalf of the KEMPAC Board, I want to thank you Delegates, the KMA Board of Trustees, the Auxiliary to KMA and staff for your help and support.

Following Doctor Watson's presentation, a motion was made, seconded, and carried to adopt the KEMPAC report.

• Editorial Note: Unless otherwise indicated, the Reference Committee action on each report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

Reference Committee No. 4

C. Ray Potts, M.D., Louisville
Chairman

Reference Committee No. 4 considered the following reports and Resolutions:

24. Report of the President, Blue Cross and Blue Shield Board of Directors
25. Report of the Committee on Medical Insurance and Prepayment Plans
26. Report of the Committee on Claims and Utilization Review
27. Report of the Committee on Health Care Costs
18. Report of the Interspecialty Council—Beginning with Paragraph 2 on Page 18.1, through Paragraph 1 on Page 18.2, and Recommendation No. 1, **only**
Resolution K—Quality and Utilization Review (Jefferson County Medical Society)
Resolution Q—Funding PSRO (Pennyrile Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 4 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

24. Report of the President, Blue Cross and Blue Shield Board of Directors—filed
26. Report of the Committee on Claims and Utilization Review—filed
27. Report of the Committee on Health Care Costs—adopted

Report of the President, Blue Cross and Blue Shield

It is my pleasure to provide the KMA House of Delegates with a status report of the operations of Blue Cross and Blue Shield of Kentucky.

Blue Cross and Blue Shield of Kentucky remains strong both financially and in the marketplace. At year-end 1980, 1,538,183 members, representing 43.1% of Kentucky's population, were enrolled with Blue Cross and Blue Shield benefits. In addition to basic coverage, more than 1 million of our members carry a Major Medical, or catastrophic, type coverage, Blue Cross and Blue Shield of Kentucky also administers Part A of Medicare which includes more than 450,000 recipients.

For the first time in our history Blue Cross and Blue Shield of Kentucky sustained a slight decrease in enrollment. Plan growth was affected by economic conditions as a whole, a general decrease in business expansion, growing unemployment and an increase in competition from the commercial insurance industry and Administrative Services Only organizations. The Plan's financial condition was impacted by President Carter's Wage and Price Guidelines. While these guidelines were voluntary for the majority of businesses, as a governmental contractor Blue Cross and Blue Shield of Kentucky was required to comply. This resulted in a deceleration of trend factors used in the calculation of dues producing revenues less than that required to cover all costs.

Although enrollment growth was slowed, claims volume for all programs continued to increase. During 1980, Blue Cross and Blue Shield of Kentucky reimbursed physicians and other providers over \$369 million with an additional \$302 million for services rendered to Medicare recipients. For the year 1980, the Plan returned 98.2¢ of each subscriber dues dollar in the form of benefits. We did experience an approximate \$19.8 million underwriting loss; however, after applying investment income to the underwriting loss, corporate reserves were reduced by some \$6.4 million or less than 1.5% of total corporate income. The Plan continues to be financially sound with adequate reserves to meet benefit payment projections.

Demand for first dollar benefit programs increased during 1980. At year's end there were more than 457,000 members covered under the Blue Cross and Blue Shield Usual, Customary and Reasonable Program. In 1980, 326 physicians signed participating agreements for the UCR Program which brought the total number of participating physicians to 3,605. This represents 84% of the practicing physicians in Kentucky.

The major issue in the health care field continues to be the rise in health care costs. The increase in costs is the result of many factors including increases in wages, supplies and improved technology. In addition to these general cost increases, 1980 saw a change in the trend in the utilization of services to a higher ratio of admissions and a longer length of stay. The number of inpatient days for 1000 members increased from 755 in 1979 to 778 in 1980. The length of stay increased from 5.60 days in 1979 to 5.71 days in 1980. Some employee groups, increasingly influenced by the economic environment and budget constraints, are now looking favorably toward health care programs which include employee participation in the cost of benefits. While first dollar coverage will continue to be primary in our marketing efforts, Blue Cross and Blue Shield of Kentucky is developing a new marketing initiative, a

Comprehensive Major Medical contract featuring front-end deductibles and co-payment provisions which will be part of our marketing portfolio.

In May 1981, Blue Cross and Blue Shield of Kentucky appeared before a public hearing to support the request for rate increases on Class I groups of two to 49 members, pay-direct (nongroup) subscribers, Farm Bureau subscribers and nongroup students. The Plan is required by State Insurance law to submit such requests for review and approval by the Department of Insurance. The request was approved in total following the hearing.

Blue Cross and Blue Shield continually endeavors to keep pace with the increasing cost of health care and new technology. As costs continue to increase, some of our older product lines become outdated, pay a smaller percentage of charges, and thus are considered obsolete. At the end of 1980 there were only 7,409 Extended Benefits contracts and 4,565 Schedule C Blue Shield contracts. We requested permission from the Department of Insurance to eliminate these benefits from the marketplace. Approval was given by the Department of Insurance. Class I groups will be changed with their July billing dates, Nongroup and Farm Bureau members will be changed with their next quarterly billing on or after August 1, 1981 and Class II and III groups will be changed on their contract dates.

Last year our report to the House of Delegates advised that Blue Cross and Blue Shield of Kentucky began profiling separate billing charges for hospital-based radiologists. As of July 1, 1981, we have signed participating agreements with 34 separate billing radiology groups representing some 98 physicians. These 34 groups serve 42 hospitals. There was only one separate billing radiologist in a very small hospital not participating in the profile system.

We have begun implementing two laws passed during the 1980 Legislative session requiring the offer of benefits for home health care and chiropractic services. Increased home health care benefits became a part of the Major Medical certificate. The benefits include coverage for the services of a licensed practical nurse, occupational therapy, speech therapy and home health aide coverage when medically necessary. Chiropractic services were developed as a rider to the Major Medical certificate and are available at an additional cost on an optional basis. The upcoming 1982 Legislative session will see additional pressure on health care for programs that mandate both benefits and reimbursement. With the continued cutbacks in federal programs, non-M.D. providers across the country are organizing to work through state Legislatures for such programs. Activity has already begun for at least one mandated proposal for 1982, providing reimbursement for clinical social worker services. Other potential bills would include benefits for psychiatric nurses, psychologists, physicians' assistants, etc.

Approved by the 1980 Legislature was Senate Bill 40 which required a uniform claim form to be implemented by July 1, 1982. We have been cooperating with the Department of Insurance and other involved parties in working toward the July 1, 1982 implementation date. In the interim, the Health Care Financing Administration announced the uti-

lization of a new claim form, HCFA-1500, to be implemented July 1, 1981. Blue Cross and Blue Shield of Kentucky in cooperation with Medicare has converted to this form. Its adoption will provide physicians' offices with a more uniform method of filing both Medicare and Blue Shield Claims. While all providers have not converted to the HCFA-1500, we are hopeful that this will ultimately satisfy the requirements of Senate Bill 40.

Cost containment is a major corporate objective of Blue Cross and Blue Shield of Kentucky. The plan operates a comprehensive 17 point cost containment program which during 1980 resulted in over \$21 million in savings to Blue Cross and Blue Shield members and an additional \$15 million to the general public. Blue Cross and Blue Shield of Kentucky is committed to cost containment as a major emphasis on behalf of our members and will continue to work cooperatively with all providers in planning, health education and monitoring. Major emphasis in cost containment will continue to be:

- Prospective hospital negotiations with each of Kentucky's acute care facilities.
- Support and emphasis placed on utilization and peer review designed to statistically evaluate trends in the use of health care costs and services.
- Utilization of participating physician agreements and individual physician profiles in the administration of our Usual, Customary and Reasonable Program.
- The Physicians' Summaries Program designed to provide physicians with statistical information regarding the cost of hospital services. The program is ongoing and results indicated that physicians who are made aware of the cost of services they order generally have a reduction in utilization.

Additional programs currently receiving emphasis include the following:

• **Ambulatory Surgery**

Blue Cross and Blue Shield of Kentucky has developed a program to encourage the use of ambulatory surgery as a cost effective alternative to inpatient care. Initially, 44 surgical procedures often performed on an inpatient basis have been identified as procedures which can safely and reasonably be performed on an outpatient basis. Conservative estimates indicate annual savings of approximately \$1.7 million, if as few as one-third of the cases involving the 44 procedures were to be performed in an outpatient setting. Physicians currently perform many surgical procedures on an ambulatory basis including a number of those identified. The purpose of this program is to expand outpatient surgery to all cases in which physicians project good results consistent with good quality care.

• **Concurrent Care Program**

This program is designed to assure the necessity of hospital admissions and the appropriateness of care received. It requires joint cooperation with the participating institution, physician staff and individual physicians involved. Several large employer groups, including the State of Kentucky, have indicated strong support of the program's potential to reduce utilization and ultimately save on health care costs. Other groups

such as Ford, General Motors, the Steel Industry and General Electric are beginning to include Concurrent Care as a part of their contract language. The main benefits of the program are the elimination of retro-active claim denials and an assurance of payment to the hospitals.

- **Group Utilization Project**

Blue Cross and Blue Shield of Kentucky has been working with specific enrolled groups whose utilization patterns appear to be significantly higher than other employee groups in the state. Meetings have been held with the providers of care and employer representatives to discuss utilization studies and to initiate activities to bring about a reduction in utilization. Group utilization is an area receiving considerable attention from our enrolled groups and this program is becoming a high priority item with major accounts and we expect interest to increase in the future. To date, 49 groups have requested such studies.

Health care costs remain the major concern to those in the health care industry. This compels hospitals, physicians, health care insurers, allied health professionals and the business community to work cooperatively. The 1980's will see increased pressures brought to bear upon providers of care and the industry as a whole to contain costs. Probably the most formidable problem arises as a result of government initiatives to reduce government spending which results in the transfer of cost to the private sector. Other pressures will include mandated benefits, as addressed earlier, which will not only remove the free choice of those paying for health care, but in many cases will include benefits for nonmedical services. If planning is allowed to disappear there is much concern over the potential explosion in hospital construction which will add to costs; and the business community is no longer willing to accept these increased costs without questions and explanations. Coalitions are being formed with representatives of the business community, labor organizations, associations, third-party payers, chambers of commerce, etc., in an effort to encourage cost consciousness by the health care industry with a resulting impact on the utilization and cost of services. It is also reasonable to expect increased interest and attention from the news media toward the issue of health care costs.

Because of these external pressures it is even more important that Blue Cross and Blue Shield of Kentucky, physicians, hospitals and the public community work together in support of an approach to the issues of cost and utilization of services.

Donald W. Giffen, President

Report of the Claims and Utilization Review Committee

The Claims and Utilization Review Committee was quite active this year. Quarterly meetings are tentatively scheduled, but are subject to change depending upon case load.

The Committee consists of representatives of every recognized medical specialty in the state and also reflects geographic mix.

The Committee's work was pretty evenly divided, consisting of cases involving medical services and hospital utilization and questions of fees. At times, questions involving appropriate medical practice are also addressed by the Committee. In the area of utilization of services, the Committee is most often faced with the question of the necessity for hospital admission or the necessity for a given length of stay, together with the appropriateness of services rendered while hospitalization occurred. Fee questions for the most part are fairly straightforward because most major carriers have sufficient statistical information on physician charging patterns. The fee questions that are submitted to the Committee apply mostly to situations where a new medical procedure has been performed; the procedure is miscoded either by the carrier or the physician; multiple procedures were performed; there is insufficient charge pattern volume information; or there were extenuating circumstances.

Two issues of a policy nature have become identified with regard to fees. The first occurs with governmental claims, Medicare and Medicaid, where regardless of the fee charged, the full amount will obviously not be paid by the program because of deductibles, disallowances and so forth. It's the Committee's opinion in these instances that its responsibility is to consider the case as a full charge question, regardless of reductions later made by the Program agencies owing to various mandated payment levels. The second issue that has arisen has been when physicians change their fees from an amount agreed to with a given carrier beforehand. It is the Committee's opinion that if a physician has negotiated fee ranges in advance, that question of a changed fee should not be considered by peer review.

Determinations of the quality of medical practice are difficult to address, but the Committee is required to consider this matter. While the Committee has no direct sanctionary authority, it does have the obligation to attempt to determine the quality and appropriateness of care rendered and to bring this to the attention of the attending physician, and if necessary, to other components of the KMA review mechanism.

This year an ad hoc coordinating commission on peer review activities completed its work and developed summary guidelines for all components of KMA's peer review mechanism, including the activities of the peer review committees. The Committee would suggest the attention of the membership to the June issue of the *KMA Journal*, which contains a description of these activities.

Guidelines were developed in the event that an attending physician should wish to attend meetings in the company of legal counsel. The Committee adopted an operating policy that the attending physician or the carrier may be accompanied at meetings by anyone they choose, but guests are not allowed to comment or participate in discussions unless the Committee allows them to do so. Because Committee meetings are of a non-judicial nature, no formal transcript of the meetings is taken, nor are at-

tending physicians or carrier representatives allowed to make formal transcripts of the meetings.

The bulk of all review is done at the district level, and the Committee would like to express its appreciation for the district committees that so capably perform review. The Committee feels it equally important to emphasize the necessity of conducting review at the district or local level because physicians at those levels are most familiar with local medical conditions and modes of practice and in the best position to adjudicate cases. For those districts which may be having difficulty or questions about the review process, we certainly invite comments and are available for any assistance necessary. We would urge that district and local groups work with as much diligence as necessary for review efforts to function appropriately at the local level. While the state Committee is obliged to review cases on appeal, initial review should certainly not occur here.

The meetings of the state Committee routinely last five hours or more, and they sometimes are difficult, exacting and even frustrating. Because of this and the voluntary donation of their time and interest, I would like to sincerely thank all of the Committee members.

William J. Sandman, Jr., M.D., Chairman

Report of the Committee on Health Care Costs

The KMA Committee on Health Care Costs held one formal meeting this year. Your Chairman continues to participate in the Kentucky Voluntary Effort for Health Cost Containment. Earlier this year, the Steering Committee of the Voluntary Effort was restructured with each member of the Steering Committee serving as a chairperson of a task force. KMA's Health Costs Committee serves as the physician task force.

The other task forces of the KVE are: **Resource**, responsible for the acquisition of funds to operate the activities and programs of the VE; **Hospital**, responsible for activities directly related to hospitals; **Legislation**, responsible for areas directly related to federal, state and local legislative and regulatory initiatives; **Communication**, charged to develop public presentations, media relations and community awareness; **Supplier**, responsible for activities and programs which directly relate to the cost of major equipment and supply items; and, **Users**, responsible for activities directly relating to third parties and consumers.

There appears to be a renewed vitality within the Voluntary Effort and its commitment to deal with the very difficult problem of containing health costs.

Last year, we reported that the Committee felt KMA should undertake a more prominent role in communicating with the opinionmakers in our communities to let them know what medicine was doing on behalf of the public in the area of health costs. We were pleased to learn last year that then President, Robert S. Howell, M.D., Louisville, instituted a series of meetings with corporate leaders across the state. This year, Doctor Howell serves as Chairman of the Health Cost Subcommittee on Corporate Communications. The goal of the Subcommittee is to serve as a

resource for local communities wishing to set up corporate communication programs and as a catalyst for generating interest in greater communication with business leaders across the state. The balance of the Health Cost Committee will continue its efforts as liaison to the Kentucky Voluntary Effort and to generate cost saving ideas for our physician colleagues.

There are now three local corporate communication programs in effect of which the Committee is aware. The Jefferson County Medical Society has established one, as has the Fayette County Medical Society and the McCracken County Medical Society. Over the past three or four years, we've noticed a tremendous increase in the interest of the business community to discuss factors influencing the cost of corporate benefit plans. The Committee urges that every county society in Kentucky make an effort to establish ongoing communications with business interests in their area. The Committee stands ready to be of assistance whenever indicated.

A great deal of attention is being given currently to the concept of competition in the provision of medical care. Basically, the concept of pro-competition is built on the premise that an individual, given a choice between health plans and the monetary incentive to be rewarded for choosing less expensive plans, will generate competition between health care providers and, therefore, lower the cost of care. It supposes that individuals will select providers strictly on the basis of cost instead of the traditional values of preceived quality, convenience and charisma of the practitioner. Since the consumer would have a financial interest in the cost of his or her coverage, he or she supposedly would be more prudent in the utilization of those services and would choose a provider who is cost efficient. Those providers who are not cost efficient would therefore be uncompetitive and would have to make changes in their practice to increase their competitiveness or go out of business.

Some observers have noted that since the hospital receives the largest share of the health care dollar today, any competition type plan would presume the marginally cost efficient hospitals would immediately go out of business. Most of the pro-competition proposals discard the fee-for-service concept and would rely on physicians and other providers agreeing to participate at a prospectively negotiated rate. The individual patient would be responsible for a part of the payment for services in most cases. Most also include a catastrophic coverage once a certain monetary threshold has been passed.

Several proposals of this nature have been introduced in the Congress the past few years, but have found little support. However, the Reagan administration has indicated that it will introduce a pro-competition bill in late 1981 or early 1982. A pro-competition plan has been developed for Kentucky which would radically restructure both delivery of services and reimbursement mechanisms. When this report was written in early July, no further action had been taken by DHR to implement the plan, although its author has indicated the Department is hopeful enabling legislation can be passed in the next General Assembly. The Committee would recommend that KMA continue to

monitor pro-competition type proposals and take appropriate action as the details of them become clearer.

The Committee commends Kentucky physicians for their continuing effort to restrain increases in health costs, both in their office practice, as well as in hospitals. We urge the ongoing commitment by all physicians to this very complex issue.

Walter I. Hume, Jr., M.D., Chairman

RECOMMENDATION:

1. The Committee would recommend that KMA continue to monitor pro-competition type proposals and take appropriate action as the details of them become clearer.

End of Consent Calendar Items

Report of the Committee on Medical Insurance and Prepayment Plans

The purpose of the KMA Committee on Medical Insurance and Prepayment Plans is to hear problems and plans of third party carriers, serve as primary liaison with carriers for KMA and to speak on behalf of KMA to address problems or suggestions the Association might have.

The Committee met four times this year. The meetings were highly informative and I appreciate the enthusiastic participation of the Committee members who attended, the cooperation of the Kentucky Department of Insurance, represented by Mr. Gil McCarty, Director, Department of Life and Health, and the representatives of third party carriers who met with the Committee.

Resolution E was passed by the 1980 KMA House of Delegates and was referred to our Committee by the Board of Trustees. Resolution E asked that KMA investigate possible inequities in reimbursement practices in areas of Kentucky which border other states. Sponsors of the resolution indicated that they felt reimbursement rates for both physicians and hospitals in areas of states bordering Kentucky were higher which often resulted in patients going out of state for care, thus decreasing Kentucky hospital census. Also cited was a situation where practitioners from a neighboring state work in a Kentucky hospital under contract and receive payment based on the usual, customary and reasonable fee for the city in which the physician group is based rather than the area in which the procedure is actually performed.

After considerable research and discussion by the Committee, we found that out-of-state UCR payments may be higher than those made in Kentucky depending on the procedure and the UCR for the state. We found that there is a trend toward an increase in patients in Kentucky hospitals and a decrease in admissions of Kentucky residents to out-of-state hospitals. Some members of our Committee living in areas bordering other states also made inquiries in their community but could find no evidence that patients

were going to other communities for care. The Committee urges that KMA members refer any specific problems they might have in this regard to it for further investigation.

A second matter referred to the Committee this year had to do with "split" billing procedures of hospital-based physicians. A representative of the Kentucky Society of Pathology met with the Committee to discuss proposed changes in arrangements for billing for services rendered. The Committee noted that KMA has taken the position that physicians have the right to choose their method and rate of billing, and that fees should not be raised just because billing methods are changed, but that reasonable administrative costs should be recognized. The Committee recommends that the House of Delegates reaffirm that policy.

Mr. McCarty reported to the Committee that legislation has been passed in the 1980 Kentucky General Assembly requiring that hospitals and physicians use a uniform claim form in dealing with third party carriers. We were advised that the claim form had been developed in conjunction with a number of organizations and that a modified version of the AMA model claim form had finally been agreed upon. We were advised that the deadline for implementing the form is June of 1982, but Mr. McCarty felt that the form would be put into general use well before that date.

Mr. McCarty also reported that the state had developed regulations which would provide for minimum standards for any coverage sold to supplement Medicare coverage. The Committee is certainly most supportive of Department of Insurance activities in this area.

The Committee discussed the issue of direct payment of UCR fees to physicians who have not signed Participating Physician Agreements with Kentucky Blue Cross and Blue Shield. This issue has been before the House many times over the past few years. There have been numerous discussions with Blue Shield urging it to change its policy regarding this issue. A detailed letter from Donald W. Giffen, President, Kentucky Blue Cross and Blue Shield, was printed in the May *Journal* detailing their corporate policy on this matter.

The Committee discussed the feasibility of implementing a program with Kentucky Blue Cross and Blue Shield where major medical claims payments could be sent directly to the attending physician. Currently, it is Blue Cross and Blue Shield policy to make payment to the patient under the Major Medical Program. However, it has been reported that when this occurs, the physician is sometimes not paid. Kentucky Blue Cross and Blue Shield is sympathetic to the problem, but notes that administrative problems presently prevent such payments. Cited were problems with determining whose fee the deductible was to be taken from since more than one physician is often involved in a particular case, satisfying the co-payment requirement and the increased administrative cost of making reimbursement to several providers rather than to the patient. The Committee is hopeful that Blue Cross and Blue Shield will be able to implement such a program at a future date. The Committee feels strongly that it would be helpful if Blue Cross and Blue Shield would notify the attending physician when a major medical claim has been paid to a patient, as well as informing the patient that the physician has been

notified. The Committee offers the following resolution to the House for consideration:

WHEREAS, major medical insurance is widely available and desirable coverage; and

WHEREAS, claims for payment under such coverage are submitted by and paid directly to the patient, which often times results in the patient not paying the physician(s) involved in the case; now therefore be it

RESOLVED, that KMA urge all carriers to develop methods of assigning direct reimbursement for physician services rendered and covered under major medical insurance; and be it further

RESOLVED, that in the interim, carriers notify the physicians involved when a major medical claim has been paid to the patient, as well as informing the patient that the physician has been notified.

Blue Shield reported on a plan which had been adopted by the National Association of Blue Cross and Blue Shield Plans to cover surgical procedures which could be safely performed in an out-patient setting. The Committee reviewed a list of procedures that routinely are done on an in-patient basis that Blue Shield suggested could be done on an out-patient basis. The program is scheduled to go into effect October 1. It was emphasized that the decision to perform surgery on an out-patient basis is strictly up to the physician and the patient on a voluntary basis. The program now will pay for out-patient on a voluntary basis. The program now will pay for out-patient procedures when done in an ambulatory surgical center or a hospital on an out-patient basis. If the surgery is done in a physician's office, payment would only be made for the physician's services. Any overhead would be reflected in the professional charge. The concept has been discussed with the KMA Interspecialty Council and several individual specialty groups. The Committee is supportive of the concept of ambulatory surgery provided that the choice of location is made voluntarily by the physician and patient and that the quality of care is not compromised.

The Committee discussed a problem relating to a disagreement as to when UCR charges could be updated to the 90th percentile. A physician group felt that their fee update was within the 90th percentile at the time it was submitted. Blue Shield stated that the fees were above the 90th percentile. The fees were raised but not to the level requested by the physicians. After hearing the issues raised, the Committee felt that Blue Shield had a contractual commitment to participating physicians to honor claims submitted which fall at or below the 90th percentile. Conversely, we felt that the attending physician should be aware of the contractual obligations of the Participating Physician Agreement before it is signed.

A considerable amount of the Committee's time was spent this year discussing a proposal entitled, "A Medical Market Model for Kentucky." The proposal was developed in the Office of Policy and Budget, Strategic Planning Group of the Department for Human Resources. The "Medical Market Model" is based on a concept termed "pro-com-

petition." The pro-competition plan is based on the theory that an individual, given a choice among health plans, with a tangible benefit available to him for choosing less benefits, will have less incentive to "over insure." In addition to the incentive to purchase no more coverage for health insurance than he predicts he will need, the individual is also made financially responsible for a segment of the cost of the care provided. Because of that, he is expected to use fewer health services and to seek out providers who are cost efficient. The goal of these plans is to lower national expenditures for health care by assuring options of coverage to employees under employer health plans. The theory is that individuals will seek out providers who deliver care at the lowest possible cost, thereby increasing competition.

The DHR plan is complex and detailed. It would markedly restructure the delivery of health services in Kentucky if implemented. Because of the far-reaching effects of the proposal, the Committee felt it important that members of the House of Delegates be furnished with copies of the proposal along with a critique of the plan developed by KMA. The Committee is unanimous in its recommendation that KMA go on record not supporting the "Medical Market Model" plan for Kentucky. It would limit the free choice of physician, establish a greater state government bureaucracy, and has the potential to be an administrative and fiscal catastrophe. The Committee also recommends that the KMA Board of Trustees take whatever action it feels appropriate to make the physicians and citizens of the Commonwealth aware of the ramifications of this plan.

The Committee members have spent a considerable amount of time and energy this year and I'm most appreciative for their continuing commitment to deal with these complex and sometimes emotional issues.

Earl P. Oliver, M.D., Chairman

RECOMMENDATIONS:

1. The Committee noted that KMA has taken the position that physicians have the right to choose their method and rate of billing, and that fees should not be raised just because billing methods are changed, but that reasonable administrative costs should be recognized. The Committee recommends that the House of Delegates reaffirm that policy.
2. The Committee offers the following resolution to the House for consideration:

WHEREAS, major medical insurance is widely available and desirable coverage; and

WHEREAS, claims for payment under such coverage are submitted by and paid directly to the patient, which often times results in the patient not paying the physician(s) involved in the case; now therefore be it

RESOLVED, that KMA urge all carriers to develop methods of assigning direct reimbursement for physician services rendered and covered under major medical insurance; and be it further

RESOLVED, that in the interim, carriers notify the physicians involved when a major medical claim has been paid to the patient, as well as informing the patient that the physician has been notified.

3. The Committee is unanimous in its recommendation that KMA go on record not supporting the "Medical Market Model" plan for Kentucky.
4. The Committee also recommends that the KMA Board of Trustees take whatever action it feels appropriate to make the physicians and citizens of the Commonwealth aware of the ramifications of this plan.

ADDENDUM

Following the completion of this report, the KMA Board of Trustees was advised in writing by Department for Human Resources Secretary, W. Grady Stumbo, M.D., that the Department for Human Resources does not support the Medical Market Model for Kentucky and does not advocate its implementation. Because of that position, the Board felt the Medical Market for Kentucky as written is no longer an issue, and that it was not necessary to disseminate the plan to the House of Delegates. The KMA Committee on Medical Insurance and Prepayment Plans will continue to monitor any other activity of this nature that might be forthcoming.

Recommendations, Reference Committee No. 3:

The Reference Committee has reviewed the four recommendations presented by the Committee on Medical Insurance and Prepayment Plans and makes the following recommendations. The Committee recommends that Recommendations No. 1 and No. 2 be adopted. The Committee also recommends that the following policy be adopted in lieu of Recommendations No. 3 and No. 4:

3. **The Committee is unanimous in its recommendation that KMA go on record in opposition to the "Medical Market Model" plan for Kentucky, and also recommends that the KMA Board of Trustees take whatever actions it feels appropriate to make the physicians and citizens of the Commonwealth aware of the ramifications of this plan.**

Reference Committee No. 4 recommends that this report be adopted as amended.

Report of the Interspecialty Council—Following Section and Recommendation 1 Only

Since its inception the Committee has sought to resolve concurrent care issues as they relate to reimbursement by third parties, particularly in the area commonly referred to as social visits. The Interspecialty Council met and considered the following item referred to the Council as a result of recommendations made in the Final Report of the Committee on Medical Insurance and Prepayment Plans adopted by the 1980 House of Delegates.

It is recommended that a policy be developed which would address appropriate concurrent care reimbursement, realizing that concurrent care may sometimes be confused with "social calls," and it is also

recommended that this matter be referred to the KMA Interspecialty Council for further discussion and development.

After careful review the Interspecialty Council has adopted a recommendation to the House of Delegates for its consideration. This recommendation in no way seeks to be all-inclusive nor to restrict or define patient-physician-family relations. The Council fully recognizes that specific personal needs of patients and family may necessitate social visits. However, certain limitations may legitimately be imposed by employers and carriers in the interests of reducing health care costs, which may restrict reimbursement for these services. Thus, it must be recognized by all parties that reimbursement for social calls may fall upon the patient rather than third party carriers. The Interspecialty Council qualifies the following recommendations by noting that it is not their intent to define, alter or influence existing or future health insurance contracts but seeks only to lend some form of guidance as requested.

If two physicians are seeing a hospitalized patient simultaneously (or separately for one identified hospital stay) and it is obvious from notes in the patient's record that both are contributing substantially to the patient's care, then both should be remunerated. This would not apply if both physicians are of the same specialty. It would not apply where there is a primary physician and a consultant since the pay for the latter is on a different basis. It would not apply to courtesy or social calls by the family physician or other physician. Whether or not the treatment by a second physician contributed substantially to the patient's care, could, where questioned, be determined by peer review of either hospital or third party mechanism.

RECOMMENDATIONS:

1. If two physicians are seeing a hospitalized patient simultaneously (or separately for one identified hospital stay) and it is obvious from notes in the patient's record that both are contributing substantially to the patient's care, then both should be remunerated. This would not apply if both physicians are of the same specialty. It would not apply where there is a primary physician and a consultant since the pay for the latter is on a different basis. It would not apply to courtesy or social calls by the family physician or other physician. Whether or not the treatment by a second physician contributed substantially to the patient's care, could, where questioned, be determined by peer review of either hospital or third-party mechanism.

Recommendations, Reference Committee No. 4:

Recommendation No. 1 of the Report of the Interspecialty Council was reviewed by Reference Committee No. 4. The Reference Committee recommends adoption of this recommendation with deletion of the phrase, "This would not apply if both physicians are of the same specialty."

Resolution K

Jefferson County Medical Society

Quality and Utilization Review

WHEREAS, the Federal Government is phasing out direct support for Professional Service Review Organizations, and

WHEREAS, review of quality and appropriateness remains a statutory requirement for payment of federally covered medical care charges, and

WHEREAS, similar review is necessary for payment or certification by such organizations as State Government, JCAH and increasingly by private health insurers and even self-insuring industries, and

WHEREAS, the "review vacuum" which would result from the dismantling of the Kentucky Peer Review Organization could also result in the establishment of separate review programs by many or all of the concerned agencies or insurers (ie Social Security Administration, State DHR, Hospital Association, various insurers, etc.), each with its own procedures, priorities and demands, and

WHEREAS, such a situation would be chaotic and cause increased overall cost of review, increased demands on practicing physicians' time and patience, and likely result in inequitable treatment of patients—depending upon which agency or insurer reviewed their case, now therefore be it

RESOLVED, that the KMA Board of Trustees investigate the phasing out of federal funding for Professional Review and its ramifications as they relate to the individual Kentucky physician and medical patient, and be it further

RESOLVED, that the KMA Board of Trustees explore the available means of assuring that all required inpatient quality and utilization review be done under the auspices of a single entity whose minimum qualifications would require that:

1. It be non-profit and self supporting.
2. It be organizationally independent of any governmental agency, third-party payor, professional, trade or provider association.
3. Its governing body be composed predominantly of physicians.
4. Its review decisions which might be unfavorable to a patient, physician or hospital be made only by practicing physicians (ie those possessing hospital privileges), and be it further

RESOLVED, that the KMA Board of Trustees report its findings and recommendations to the next regular meeting of the House of Delegates.

Recommendations, Reference Committee No. 4:

The Reference Committee listened to much debate supporting Resolution K—Quality and Utilization Review, introduced by the Jefferson County Medical Society, as well as a substitute resolution, submitted by the Board of Trustees. After evaluating the information given to the Reference Committee, it was the unanimous feeling that Resolution K should be adopted as originally written.

Resolution Q

Pennyriple Medical Society

Funding PSRO

WHEREAS, Resolution J was introduced by the Pennyriple Medical Society to the 1980 House of Delegates of the KMA, discussed and referred to the Ad Hoc Committee on Peer Review, and

WHEREAS, in the intervening year both the AMA and the AHA have withdrawn official support of PSRO funding, thus generally supporting our Resolution J, and

WHEREAS, the original purpose of PSRO legislation (the Bennett Amendment) was to assure quality of medical care. Subsequently, this purpose was changed to implement cost control measures and review activities that have not improved the quality of medical care and have, according to the GAO, not shown any substantial evidence that significant cost control has resulted, now therefore be it

RESOLVED, that a request to stop funding the PSRO program by Federal tax dollars be made to the President, Kentucky Congressional delegates, and the Secretary of HHS.

Recommendations, Reference Committee No. 4:

Due to the fact that there is evidence that federal funding for PSRO will soon stop, the Reference Committee felt that Resolution Q—Funding PSRO, introduced by the Pennyriple Medical Society, at this time, would be of very little value and recommends the rejection of this resolution.

A motion was made from the floor that the recommendation of the Reference Committee be rejected; and that Resolution Q be adopted. On a call for the vote, the motion carried, and Resolution Q was adopted.

Reference Committee No. 4 recommends adoption of the Report of Reference Committee No. 4 as a whole as amended.

Mr. Speaker, the Committee would like to express its thanks and appreciation to Mrs. Jean Wayne for her expert secretarial assistance to the Committee.

Additionally, Mr. Speaker, I would like to express my sincere thanks and appreciation to the following members of this Committee: Ward O. Griffen, M.D., Lexington; Willis P. McKee, Sr., M.D., Shelbyville; William L. Miller, M.D., Greenville; and Raymond J. Timmerman, M.D., Ft. Thomas.

REFERENCE COMMITTEE No. 4:

C. Ray Potts, M.D., Louisville, Chairman

Ward O. Griffen, M.D., Lexington

Willis P. McKee, Sr., M.D., Shelbyville

William L. Miller, M.D., Greenville

Raymond J. Timmerman, M.D., Ft. Thomas

• Editorial Note: Unless otherwise indicated, the Reference Committee action on each report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

Reference Committee No. 5

*R. D. Pitman, M.D., Williamsburg
Chairman*

Reference Committee No. 5 considered the following reports and Resolutions:

28. Report of the Committee on Maternal and Child Health
29. Report of the Committee on Medicare and Other Governmental Medical Programs
30. Report of the Committee on HSAs
31. Report of the Technical Advisory Committee on Physician Services (Title XIX)
32. Report of the Committee on Community and Rural Health
33. Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports, with the following exceptions:
Recommendation #1—referred to Reference Committee No. 3
34. Report of the Advisory Committee to the Department for Human Resources
5. Report of the Chairman, Board of Trustees—the following sections, **only**:
Last paragraph on page 5.10, and the full Reports of the Ad Hoc Committee on Medicaid and the Ad Hoc Committee to Study Regional Boards of Health
17. Report of the Emergency Care Committee, paragraph 1 on page 17.2, beginning with the second sentence, and Recommendation #2, **only**
Resolution D—Repeal of Health Planning Law (Harold L. Bushey, M.D., Chairman, Committee on HSAs)
Resolution I—Reauthorization of the Clean Air Act (Jefferson County Medical Society)
Resolution J—Government Intrusion into the Practice of Medicine (Jefferson County Medical Society)
Resolution O—Member Interest in Service as Medical Examiners (G. R. Nichols, II, M.D., and Frank R. Pitzer, M.D.)
Resolution S—An Amendment to Department for Human Resources Regulation 904 KAR 1:038; Section 3 (Pennyrile Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 5 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

28. Report of the Committee on Maternal and Child Health—Filed
29. Report of the Committee on Medicare and Other Governmental Medical Programs—Filed
30. Report of the Committee on HSAs—Filed
31. Report of the Committee on Technical Advisory Committee on Physician Services (Title XIX)—Filed
32. Report of the Committee on Community and Rural Health—Filed

33. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports, with the following **exception**: Recommendation #1—referred to Reference Committee No. 3—Filed (Note: Appears in brackets in Journal)
34. Report of the Advisory Committee to the Department for Human Resources—Filed
Resolution D—Repeal of Health Planning Law (Harold L. Bushey, M.D., Chairman, Committee on HSAs)—Adopted
Resolution O—Member Interest in Service as Medical Examiners (G. R. Nichols, II, M.D., and Frank R. Pitzer, M.D.)—Adopted
Resolution S—An Amendment to Department for Human Resources Regulation 904 KAR 1:038; Section 3 (Pennyrile Medical Society)—Adopted

Report of the Committee on Maternal and Child Health

The Committee on Maternal and Child Health met on March 13, 1981, at which time the progress of perinatal care in Kentucky was reviewed. The current plight of the perinatal program was discussed, noting specifically deficiencies of up to \$1.4 million at Norton's Children's Hospital in Louisville. It was indicated that deficits of a similar nature were presumed to exist at both the University of Kentucky and the University of Louisville. The impact of such deficits becomes obvious when the University of Kentucky is considered because of a planned expansion of UK's neonatal unit from 38 to 45 beds, which might not now become a reality.

It was reported that David Allen, M.D., Commissioner for Health Services, had appeared before a panel of the General Assembly's Interim Committee on Health and Welfare to discuss these matters and had expressed the opinion that secondary units would not come on line to alleviate the current tertiary problems due to the former's fear of fiscal uncertainty created by a decrease in the State's reimbursement policy regarding uncollectable debts. Doctor Allen had charted the decrease in state reimbursement from 90 cents on every dollar uncollected to the current reimbursement return of 49 cents for every uncollected dollar. The end product appears to be a total inability to withstand this sort of fiscal pressure.

The impact of these financial pressures on various geographical areas within the State was discussed at the Committee meeting. Concern was expressed that the substantial progress made within the Commonwealth to date would come to a standstill, and the situation might well return to that which existed five to seven years ago. For these reasons, it was suggested that those Committee members who were unable to attend the March meeting be apprised of the impending plight of the perinatal care program. This was accomplished by forwarding the data which had been released at the meeting to the respective Committee members, as well as to the Presidents of the various specialty

societies having an interest in this area of health care delivery. The concerns of the Committee were also brought to the attention of the KMA Executive Committee.

As Chairman of the Committee, I express my appreciation to the members for their service and their contribution to the Association and to medicine in general. I would also like to thank the KMA staff for its assistance to our Committee.

Van R. Jenkins, M.D., Chairman

Report of the Committee on Medicare and Other Governmental Medical Programs

The Committee on Medicare and Other Governmental Medical Programs consists of representatives from each of the three socioeconomic reimbursement areas recognized by the Medicare Program. The main issue considered by the Committee this year was Resolution F, considered by the House of Delegates last September. The issue dealt with replacing the Metropolitan Insurance Company as the Medicare intermediary for Kentucky. The Delegates did not pass the Resolution, but did feel that contact should be maintained with the intermediary on this subject.

At its meeting, the Committee invited representatives of the Medicare Office, who were the Manager, Assistant Manager and two field representatives. In the view of the Committee members, the Resolution was presented because of complaints from physicians that reimbursement was low and inequitable because of area distinctions and because of administrative difficulties experienced, including lengthy delays in reimbursement.

The Medicare representatives commented on the level of reimbursement to the effect that amounts were determined according to a formula stipulated by federal statute, and were not within the influence of the carrier to change.

With regard to delays in reimbursement, the Committee was advised that new processing procedures and equipment had been put into operation since September, and these had alleviated many of the delay problems. Very few complaints have been received from physicians since the new equipment and process began functioning. Statistical information was distributed to the Committee, which showed a marked improvement in turn-around time between claim submission and reimbursement.

The Medicare representatives were asked to comment on the implementation of Kentucky S.B. 53, which would require Medicaid to pay physicians the same amount for the same procedure, regardless of location of practice. The carrier representatives were aware of this situation, and had conducted informal statistical studies to determine the effect of combined payment areas. Their information showed that physicians in Area III would receive more reimbursement, physicians in Area II would receive approximately the same reimbursement, and physicians in Area I would probably receive less reimbursement, under a single statewide reimbursement method. The representatives had no information on the status of this determi-

nation, but could only advise that it would be made by the Health Care Financing Administration in the near future.

Discussions were held concerning the method of selection of Medicare intermediaries, and it was learned that carriers were initially selected arbitrarily by the federal government. Since that time, carriers must submit competitive bids based on the price for processing each claim, previous performance of the carrier and other technical evaluations. Carrier contracts are let for one year, and are essentially automatically renewable. Reimbursement by carrier is accomplished by means of letters of credit at banks which are adjusted each month. Funds are not paid in advance to carriers for administrative operation, but are reimbursed by the government after expenditures are justified.

With regard to administrative operations, the Medicare representatives noted that a simplified claim form was implemented in July, and was preceded by several workshops held throughout the state to introduce it. The form, HCFA 1500, is similar to the Unified Claim Form adopted by AMA and most carriers in Kentucky will be using this form in the near future.

National legislative proposals that might affect Medicare were discussed, which included the possibility of regionally based physician reimbursement, elimination of choice of physician, and caps on the amount of money the government would allocate for the Medicare Program.

The Committee found the discussions with the Metropolitan representatives helpful and cordial, and feels that notable changes have been made in the carrier's operations. Because of the concern of the House of Delegates with the Medicare Program, and because the federal caps and block grant proposals will have a significant effect, the Committee feels that ongoing liaison with the Metropolitan-Medicare Office should continue.

Paul J. Parks, M.D., Chairman

Report of the Committee on HSA's

In view of the many changes which have recently occurred within the health planning area, the Committee on HSA's felt it appropriate to review this altered situation with the Executive Directors of both the Health Systems Agencies East and West. John Hackworth, Ph.D., of HSA East, presented information concerning that agency's activities, pointing out that while budgetary constraints have warranted a cutback of certain staff and services, the agency was nevertheless continuing to function without undue difficulty. Doctor Hackworth stated that state funds were no longer being provided for the operation of HSA East. However, federal funds have been allocated through fiscal year 1981, which for HSA East means funding will be available through August of 1982. Doctor Hackworth is also hopeful that some local funds will be provided through the subareas in order to further assist in the continued maintenance of agency activities. Doctor Hackworth observed that developments within the jurisdictional area of HSA East, particularly the Humana application for a full

service hospital in Lexington, have stirred a substantial amount of controversy. He also noted the potential challenge to the planning system which is presented as a result of the method used by Governor Brown to alter the newly-proposed State Health Plan.

Larry Newby, Ph.D., outlined the situation currently existing with regard to HSA West. As with Doctor Hackworth, Doctor Newby pointed out that funding cutbacks had necessitated a decrease in staff and services, but these cutbacks had not thus far been devastating to his agency's activity.

Doctor Newby also expressed concern regarding the method by which the State Health Plan was altered by Governor Brown. In light of the moratorium on acute care beds, Doctor Newby perceived a potential conflict with HSA West's newly-proposed acute care methodology.

While a representative of the Central Ohio River Valley Authority (CORVA), the HSA for northern Kentucky, did not make a presentation, routine monitoring has also been directed at these activities. This HSA, whose authority crosses the Ohio-Kentucky boundary, includes the Kentucky counties of Campbell, Kenton and Boone.

The Committee considered how KMA should posture itself in light of the previously-mentioned reports, as well as the recent expression by the American Medical Association of an intent to support voluntary community based health planning while at the same time seeking repeal of the National Health Planning and Resources Development Act (P.L. 93-641).

Committee member Marion Douglas, M.D. offered a resolution concerning KMA's position with regard to health planning and that resolution is currently being modified by the committee for later presentation to the Board of Trustees and the KMA House of Delegates.

The Committee also endorsed and recommended AMA Resolution 22 as passed by the AMA House of Delegates in July 1979. This resolution deals with out-of-hospital birth risks and the Committee viewed the import of that resolution favorably.

Lastly, concern was expressed that the current statutory provisions dealing with membership on the Certificate of Need and Licensure Board prohibits the physician members from serving either as Chairman or Vice Chairman of the Board. This was felt to be discriminatory. For this reason, the Committee determined to draft a resolution for later presentation to the House of Delegates, which resolution would advocate the removal of this sort of discrimination from the Certificate of Need Law.

Harold Bushey, M.D., Chairman

Report of the Technical Advisory Committee on Physician Services (Title XIX)

The Technical Advisory Committee on Physician Services routinely meets quarterly, which is roughly in conjunction with meetings of the Medical Assistance Advisory Council. The purpose of the Committee, which is statutorily required, is to advise the Council on matters relating to physician services, to act as an advocate on behalf of the

profession to the Program, and to try to resolve individual physician problems.

Much of the Committee's work this year was dedicated to policy questions surrounding Medicaid, which culminated in the special meeting of the House of Delegates on April 16. Prior to that time, the Committee consulted on and helped develop the survey on physician participation in Medicaid, attended meetings with state officials, together with the Board of Trustees and the Executive Committee, and had input into the development of the background material submitted to the Delegates for their special meeting.

In the atmosphere of uncertainty surrounding Medicaid, the Committee acted more as an advisor to the Board of Trustees this year than as an independent advisory body to the Medical Assistance Advisory Council, and the future activities of the Committee will depend on policy developed by KMA with regard to Medicaid.

Prior to the special House meeting, some notable issues were addressed by the group. One concerned a proposal by the Medical Assistance Program for recovery of overpayments to physicians. The proposal included a computer review of payments to physicians. If overpayments were discovered, the dollar amount of money paid to the physician for treatment of randomly selected patients would be compared with the total amount paid for services to all patients. An extrapolation would then have been made and the determination of overpayment would then occur. The Committee opposed statistical determination of overpayment and felt that recovery of overpayments should simply be based on a dollar-for-dollar remuneration.

The Committee learned that the Medicaid Management Information System (MMIS) will likely become operational in October. This is a semi-federal information system that has been in the development stages for the last five years. At the time MMIS does begin, it's likely that physicians will experience some delays in the turnaround time on claims submitted.

Several inquiries were made to the KMA Headquarters regarding the authority of Program representatives to review physician records in-office. The Program does have the authority to conduct review and does have legal access to medical records. Although there may have been some isolated incidents where controversy arose between the reviewers and individual physicians, hopefully, these were at a minimum. The Committee would advise that reasonable arrangements convenient to both the physician and the reviewer should be made and mutually agreed upon. While access to records is required, the realities of a busy office practice should be recognized by Program reviewers.

Another issue arose where information about amounts paid by the Program to individual physicians was requested for public release, and portions of this material were subsequently published in a newspaper. While the Committee is opposed to general publication of this type of material without any qualifications or explanations, it was learned that the information released was probably legally appropriate, and that no reasonable opposition to it could be mounted.

A final major issue that the Committee considered was the question of the appropriateness of prescriptions for eyeglasses. Apparently, some eyeglass prescriptions have been made where the corrective strength of the glasses was minimal. This was considered from the standpoint of medical necessity and program guidelines for eyeglass prescriptions, rather than from a sanctionary viewpoint.

After reviewing information provided by the Program, as well as other physicians, the Committee made recommendations to the Advisory Council regarding the minimum strength of eyeglasses allowed under the Program. After due consideration, the Council elected not to alter Program guidelines at this time.

I would like to thank each of the members of the Committee for their interest and efforts and would like to specifically note the work of Robert N. McLeod, Jr., M.D., who serves as KMA's representative to the Advisory Council.

Harold L. Bushey, M.D., Chairman

Report of the Committee on Community and Rural Health

The Community and Rural Health Committee met formally one time during the 1980-81 year to discuss several items referred to the Committee as a result of the 1980 House of Delegates meeting.

The Committee recommended, and subsequently the Board of Trustees approved, a letter sent to all County Society Secretaries urging counties to consider implementing a Pharm-Alert System in conjunction with their local Pharmacy Society. The Committee shall continue monitoring this situation and will report back to the House of Delegates any positive results or additional information regarding the adoption of local Pharm-Alerts that we feel might be of interest to the Association.

The major discussion during the meeting centered on the proposed Regional Boards of Health and member participation on these Boards as they presently exist. Several recommendations were made to the Board of Trustees regarding regionalization of County Health Boards as a result of the Committee meeting. However, due to the complexity and urgency of a more coordinated effort regarding proposals by the Secretary for the Department for Human Resources, the Board of Trustees has taken under advisement the Committee's recommendation and is meeting with representatives of the Department for Human Resources on a continuing basis. Surrounding states have been written regarding their official positions and information with regard to regionalization proposals. Replies have been forwarded to the Board of Trustees for information and use in developing the Board's position and proposals.

The Committee endorses the activities of the Board of Trustees in the above-mentioned matter and supports its efforts to resolve the extremely difficult and complex problems brought about as a result of fiscal restraints imposed by federal and state government.

Don R. Stephens, M.D., Chairman

Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports

The School Health Committee has continued to work with the University of Kentucky College of Medicine in the annual presentation of the Medical Aspects of Sports Symposium. This year's program was entitled "Sports Medicine Programs for Our Schools." The Symposium has been held each Spring for the past 10 years. The Committee develops the program, selects the speakers and relies on the University of Kentucky College of Medicine CME office to provide the logistic support. These arrangements have proven quite beneficial and we would like to express our appreciation to the University of Kentucky for its cooperation and support. This year we had a registration of over 250 participants from across Kentucky and surrounding states. We hope to continue to draw a large audience for our 1982 program which is currently being planned. The 1982 program will be held March 15-16, 1982, at the Hyatt Regency in Lexington.

The Committee continues to receive reports from areas in the state which are still without physician coverage for their high school athletic events. In some areas non-physicians have filled this void. It is important for our Association to ensure that our state's athletes receive the best possible medical care. We again request the assistance of the membership in volunteering to assist the high schools in their areas. We feel the experience you encounter in providing these services will be a rewarding and enjoyable one.

A need was determined to offer a one-day program on the "Basics of Sports Medicine" to be presented in the far western part of the State. A program was developed in conjunction with the University of Louisville School of Medicine. Unfortunately, by the cutoff date for presentation of this program, insufficient registration necessitated having to cancel the program. The Committee still feels this concept has merit and may try it again if a sufficient interest can be generated.

The Committee still participates on the program of the Kentucky High School Athletic Association's Fall Coaches and Officials Preseason Clinics. Committee members attend the program in their area and offer a half-hour presentation on preventive medicine and pre-conditioning procedures. These briefings have proven beneficial in reducing injuries and serious medical problems.

There has been considerable interest on the Committee to pursue the appropriate actions to provide more athletic trainers for the state's high schools. Legislation has already been enacted to provide for certification of athletic trainers but no program exists to aid high schools in procuring the services of a trainer. Nor are there any programs to assist teachers and coaches to obtain the necessary instruction to become a Certified Athletic Trainer. The Committee feels that the Association could be beneficial in addressing this issue. A subcommittee was formed to study the issue in greater detail and should we arrive at a recommendation

before the House meets, we will prepare an addendum to this report for its consideration.

The Auxiliary and the Committee are in the process of reviewing the State's Health Education Program offered for grades K-12. The goal of this effort is to provide the most ideal and comprehensive program on health education for Kentucky's youth. Work has just begun on this subject and we should have more to report next year.

On behalf of the Committee, I would like to thank the University of Kentucky College of Medicine and the University of Louisville School of Medicine for their support and assistance in presenting programs on Sports Medicine. I would also like to convey my personal thanks to the Committee members who have provided a considerable amount of time and service to the Committee in the development and production of the Symposium and workshops.

R. Quin Bailey, M.D., Chairman

ADDENDUM

Of concern to the Committee is the lack of qualified athletic trainers. The Committee had previously discussed this issue several times. It felt that additional study was needed; therefore, a special subcommittee was designated to review this issue. The subcommittee met with representatives of the Athletic Trainer's Advisory Council and the KMA staff to determine the alternatives available to the Committee. The final recommendation of the subcommittee was to inform the state government of the need for additional qualified athletic trainers for Kentucky's School System. However, due to the state's current financial status, little action could be expected in the near future. The subcommittee felt that this issue should be brought to the attention of the 1982 General Assembly so they may be aware of the need for an expanded program for the training and support of athletic trainers when available resources could be provided.

The other area of interest is the current effort being undertaken by the KMA Auxiliary to develop a "Comprehensive Health Education Program" for grades K-12. The Kentucky Board of Education mandates that both physical education and health education be taught in the public schools. At least a ½ hour credit must be attained in each of these subjects. Each school district, however, has the discretionary authority to designate the curriculum it deems appropriate. The Auxiliary, as well as the Committee, is concerned with the lack of proper attention given this issue by the schools. Even though the state provides a suggested curriculum for the instruction of health education, the schools are not required to follow it. The Auxiliary has designated as one of its goals the task of making schools aware of the need for a proper health education curriculum and an appropriate amount of time set aside for its instruction. It is its goal to work with district school boards to insure that the most qualified teacher will be responsible for coordinating health education courses in a particular school system. The Auxiliary is also working with the Kentucky Chapter of the American Lung Association which is also interested in improving the quality of health education in our school systems. The Committee supports the efforts

of the Auxiliary and is offering its assistance and expertise to review prepared curriculum for accuracy.

The Committee regrets adding this additional section to its report but felt it important to bring these items to the House's attention this year.

[RECOMMENDATION:]

1. The Committee recommends that the following resolution supporting the athletic trainer concept and continued support of programs to train additional trainers be encouraged with the adoption of the following resolution to be submitted to the 1982 General Assembly:

WHEREAS, it has been verified that many long-term, sports-induced disabilities can be reduced or prevented by proper and timely on-site treatment, and

WHEREAS, the availability of qualified medical care at contact sporting events has become vital, and

WHEREAS, the welfare of the student athletes of the Commonwealth is of primary concern to all citizens, and

WHEREAS, the Kentucky General Assembly has affirmed this importance by enacting legislation providing for the certification of athletic trainers, now therefore be it

RESOLVED, that the Kentucky General Assembly be encouraged to express continued support of the concept of the athletic trainer program by means of a concurrent resolution drawing the attention of the Department of Education, educators and school administrations to consideration of all possible approaches to effect the trainer program, and be it further

RESOLVED, that the Kentucky General Assembly be further encouraged to monitor the status of the athletic trainer program on an ongoing basis and provide fiscal assistance when feasible.]

Report of the Advisory Committee to DHR

The Advisory Committee to the Department for Human Resources was appointed to provide a means of regular access and liaison to the Department on health issues. It consists of the President, President-Elect, Chairman of the Board of Trustees, and Chairman of the Committee on State Legislative Activities.

While some of the issues considered by the Committee, with the Secretary of the Department for Human Resources and the Commissioner of the Bureau for Health Services and others, have also been agenda matters for other KMA committees, the input at the cabinet and bureau level has been helpful.

Several meetings of the Committee were held this year relating to Medicaid, which culminated in the special meeting of the House of Delegates on April 16, and issues concerning the activities and regionalization of boards of health.

Although the Committee's work requires a good bit of travel and quite a few hours, it is felt to be quite effective because general matters that establish policy are addressed and commitments can be obtained.

The specific matters considered by the Committee will not be addressed here, as they are discussed elsewhere. My very cordial thanks, however, are extended to the members of the Committee for their diligent and faithful work.

Frank R. Pitzer, M.D., Chairman

Resolution D

**Harold L. Bushey, M.D., Chairman,
Committee on HSA's**

Repeal of Health Planning Law

WHEREAS, in 1980 the AMA resolved to seek the repeal of the National Health Planning Act (P.L. 93-641/96-79) and to insure that as long as that Act was in effect it would have equal application to HMO's; and

WHEREAS, action taken by the 1981 AMA House of Delegates reflects that legislation designed to achieve those ends has been introduced in the 97th Congress; and

WHEREAS, AMA has during this same time frame consistently expressed support for voluntary community based health planning and called upon the medical profession to accept responsibility and assume leadership in this area; and

WHEREAS, recent AMA policy statements regarding voluntary health planning contain suggested principles for consideration in establishing a voluntary community health planning program; and

WHEREAS, the KMA has taken notice of the above, as well as the statements of the respective Secretaries of the federal Department of Health and Human Services and the state Department of Human Resources indicating that substantial changes in the health planning arena are imminent; and

WHEREAS, the KMA perceives a continuing need for physician participation and leadership in a voluntary, collaborative system which reduces or eliminates barriers to the provision of high quality medical and health services and at the same time fosters orderly development and use of resources at a community level; now therefore be it

RESOLVED, that the Kentucky Medical Association be on record as supporting the repeal of the National Health Planning and Resources Act (P.L. 93-641/96-79); and be it further

RESOLVED, that the KMA advocate physician participation and leadership in voluntary community based health planning in order to insure the continued improvement of the health care system within the Commonwealth of Kentucky.

Resolution O

**G. R. Nichols, II, M.D.
Frank R. Pitzer, M.D.**

Member Interest in Service as Medical Examiners

WHEREAS, there has been public interest in adopting a formal Medical Examiner system in the Commonwealth of Kentucky, now therefore be it

RESOLVED, that the membership of the Association be formally polled to ascertain the willingness of physicians to serve the Commonwealth as Medical Examiners.

Resolution S

Pennyrile Medical Society

An Amendment to Department for Human Resources Regulation 904 KAR 1:038; Section 3

WHEREAS, Department for Human Resources Regulation 904 KAR 1:038, Section 3 was amended to permit Medical Assistance reimbursement to optometrists for diagnostic services on patients over the age of 21. This had not heretofore been the case. Only ophthalmologists had been reimbursed for diagnostic examinations on these patients, and

WHEREAS, this was interpreted by the Department for Human Resources to permit pooling of funds available for diagnostic evaluations by ophthalmologists and optometrists in a vision care fund separate from the general funds available to reimburse health care providers, and

WHEREAS, March 27, 1981, physician letter A-80 was circulating terminating reimbursement as of April 1, 1981, for all diagnostic services by eye care providers except for those patients with treatable diagnoses. This meant that the patient who presented with symptoms compatible with treatable diseases (ie, headache, blurred vision or double vision) would not have his visit covered under medical assistance, unless he proved to have a surgically or medically treatable disease. Thus, the ophthalmologist was left with the choice of turning away such patients without evaluation or evaluating them with the knowledge that he would not be reimbursed for his evaluation, unless he found or fabricated a medical or surgical disease, and

WHEREAS, no other medical health care provider is asked by the Medical Assistance Program to evaluate patients for suspected disease without reimbursement, and

WHEREAS, this represents an unacceptable discriminatory practice toward ophthalmic physicians and acts contrary to the best interest of Medical Assistance patients seeking evaluation for legitimate eye problems, and

WHEREAS, Section 3 of 904 KAR 1:038 presently reads as follows:

"If the funds allocated in the budget for eye examinations, prescriptions (for glasses), and other

services are exhausted for the over age twenty-one (21) group, vision care services provided by ophthalmologists and optometrists will be terminated for that age group; **this limitation shall not be interpreted to limit treatment of diseases of the eye by ophthalmologists.** Vision care services for the over age twenty-one (21) group if terminated, shall be reinstituted at such time as funds again become available."

Now therefore be it

RESOLVED, that this body go on record supporting an amendment to Section 3 of 904 KAR 1:038 after the semicolon in the first sentence, to read as follows (sentence in bold face type):

"This limitation shall not be interpreted to limit diagnosis of suspected diseases of the eye or treatment for disease of the eye by the ophthalmologists."

End of Consent Calendar Items

Report of the Chairman, Board of Trustees

Following paragraph Only, and Full Reports of the Ad Hoc Committee on Medicaid and the Ad Hoc Committee to Study Regional Boards of Health

The Ad Hoc Committee on Medicaid was appointed at the time of the special meeting of the House of Delegates in April to monitor the status of KMAP and to help suggest KMA policy on Medicaid. The Ad Hoc Study Group on Regional Boards of Health was formed jointly with the Kentucky Academy of Family Physicians to monitor and try to influence the act of regionalization of health department activities.

Ad Hoc Committee on Medicaid

Just prior to the special meeting of the House of Delegates on April 16, 1981, the Board of Trustees appointed the Ad Hoc Committee on Medicaid to consider problems with the Kentucky Medical Assistance Program from a strategic perspective. The further purpose of the Committee was to advise the Board and help formulate KMA policy on Medicaid.

At its special meeting the House passed Resolution A, which has been disseminated to the membership. The second "Resolved" of the Resolution called on KMA to urge the Secretary of the Department for Human Resources to accomplish five different objectives with regard to the operation of the Medical Assistance Program. The third "Resolved" called on the Ad Hoc Committee to assist the Board of Trustees in responding to requests from the Secretary, and the last "Resolved" directed that the membership be kept informed on implementation efforts of requests received from the Secretary.

The Committee met and considered the activities of the House at its special meeting in some detail, along with the history and current status of Medicaid. Based on the di-

rections indicated in the Resolution, the Committee requested the Board to ask the Secretary for Human Resources to provide ongoing information concerning any efforts he was making to achieve the objectives requested in the Resolution. In his response, the Secretary discussed each of the objectives briefly. Information was received that reduction of Program coverage in a number of areas was being considered, and in some instances implemented, to achieve a balanced budget. If deficit spending could not be avoided, the Department had given thought to eliminating entire categories of service in priority order.

Reimbursement inequities were reported to be a major concern of the Department, which expressed that payments made on a single statewide area would, hopefully, ameliorate any inequities realized by physicians. With regard to utilizing a private intermediary for administrative operations, the Department had determined that the administrative budget is roughly 4% of the benefit budget. This constitutes reasonable administrative costs and this, together with the implementation of the Medicaid Management Implementation System, fairly well precluded use of a private fiscal agent.

The Ad Hoc Committee also considered three specific proposals from the Department. The Department had suggested that second opinions be sought for all surgical procedures. The Committee recommended that such a program not be instituted, as no significantly measurable benefits had resulted in any similar program of which the Committee members had knowledge. Likewise, it was felt that such a mandatory program refuted the proper medical judgement of the attending physician.

Two other proposals called for preauthorization for certain stipulated surgical procedures and the complete elimination of others. The Committee recommended opposition to both proposals. While preauthorization for some procedures and elimination of others appeared credible as cost saving measures, the Committee felt that routine negative consideration of some procedures and routine denial of others again precluded the physician's judgement, particularly if no mechanism existed for reconsideration of such procedures.

From its report to the Board, the Committee was directed to continue communications with the Secretary to learn of further implementation activities of the goals listed in Resolution A, and this has been undertaken.

Wally O. Montgomery, M.D., Chairman

Ad Hoc Committee to Study Regional Boards of Health

The Ad Hoc Committee to Study Regional Boards of Health grew from an ad hoc committee appointed by the Board of Trustees. The original ad hoc committee was appointed to consider Resolution G, passed by the House of Delegates in 1980. This Resolution expressed concern about the activities of local health departments, as well as physician involvement on boards of health.

Because of similar efforts being conducted by the Kentucky Academy of Family Practice, the two groups merged to address common problems.

Throughout the year, a number of meetings were held with W. Grady Stumbo, M.D., Secretary of the Department for Human Resources; David T. Allen, M.D., Commissioner of the Bureau for Health Services and others, to try to accommodate the concerns of the House of Delegates.

The key issues in these discussions were the moves by the Department for Human Resources to regionalize health departments, the composition of regional or district boards of health, the clinical services to be provided through health departments and health department funding.

The KMA Board of Trustees had adopted a position in opposition to district boards of health, based on Resolution G and input from individual Board members. Statutory review indicated that it was within the authority of the Department to institute this regionalization, so that board composition of district health departments became critical. An agreement was reached between the Study Group and the Department to assure a minimum of 25% physician representation on district boards, and appropriate language was initiated through the regulatory process to accomplish this. Because of administrative difficulties, these regulations have not been finalized as yet, but apparently the Department is committed to them.

Of major concern to the Study Group and the House of Delegates, as indicated in Resolution G, was the provision of services through health departments. It was learned that a good many services are provided by means of federal funding and federal precedent which, in some cases, transcends state control. This situation, however, did not alter strong opposition to the provision of many of these services. Lengthy discussions were held and a philosophical agreement on the part of the Department was reached where district health departments would provide educational services and, where applicable, appropriate screening services, followed by referral and treatment by private physicians. In addition, boards would become involved in homemakers services, home aide services and other health service activities on the written direction of the private physician caring for the patient. The implementation efforts of this policy continue to be closely monitored.

With regard to the funding issue, one of the reasons for the Department's move for regionalizing health departments was to consolidate and thereby reduce expenses. A rescission in state funds produced a situation where funding at continued levels was not possible. According to the Department, however, predicted regionalization would allow continued funding to regionalized departments, but would require a 25% reduction in state funds for local departments that would not choose to regionalize. Legal review of the matter indicated substantial further authority of the Department to make this move.

Careful, considered legal research strongly indicated that legal recourse for relief from the Department's activities was not realistic and would not very likely be productive. At the same time, the Board of Trustees, through recommendations by the Study Group, committed opposition to any results from these moves that would jeopardize the quality of care delivered to Kentuckians. This issue remains one of ongoing research and discussions with little concurrent accomplishments on the part of the Department

to date. It is projected that future results will depend strongly on federal directives governing service delivery funding and federally subsidized programs.

Dwight L. Blackburn, M.D., Chairman

Recommendations, Reference Committee No. 5:

Report of the Ad Hoc Committee on Medicaid—Reference Committee No. 5 reviewed the Report of the Ad Hoc Committee on Medicaid. This Ad Hoc Committee was appointed to review several proposals made by the DHR and presented to the Kentucky Medical Association for reaction.

At the time that the Ad Hoc Committee Report was written, the Committee had not been able to give full consideration to three of these proposals. Reference Committee No. 5 therefore recommends that the issues involving second opinions for all surgical procedures, preauthorization for certain stipulated surgical procedures, and elimination of certain surgical procedures, be referred back to the Ad Hoc Committee on Medicaid for further study and reaction.

Report of the Ad Hoc Committee to Study Regional Boards of Health—The Reference Committee next considered the Report of the Ad Hoc Committee to Study Regional Boards of Health.

After much discussion with physicians present, the consensus of Reference Committee No. 5 was that KMA continue to support a policy opposing district health departments. The Committee thus recommends that this report be filed as written.

Report of the Emergency Medical Care Committee Following Paragraph and Recommendation 2 Only

The Committee also reviewed Resolution M which was passed by the House of Delegates in 1980 calling for the continuation of regional poison control centers in place of a statewide center. It was the feeling of the Committee that while some regional poison control centers in Kentucky are excellent, there are some parts of the state where information on poisonous materials is minimal. As a result, the Committee feels that there is a real need for a statewide poison information center where up-to-date toxicology information could be centralized. Since last year's Annual Meeting, a statewide center has been established at Norton-Children's Hospital in Louisville. The Center has a 24-hour toll-free number, a full-time physician in charge of the Program, and is staffed around the clock by qualified physicians and pharmacologists. The role of the Poison Center is primarily to provide information on toxic substances as opposed to treating patients. The Committee is hopeful that the House of Delegates will reconsider the position taken on this issue last year.

RECOMMENDATIONS:

2. It was the feeling of the Committee that while some regional poison control centers in Kentucky are excellent, there are some parts of the state where information on poisonous materials is minimal. As a result, the Committee feels that there is a real need for a statewide poison information center where up-to-date toxicology information could be centralized. The Committee is hopeful that the House of Delegates will re-examine the position taken on this issue last year.

Recommendations, Reference Committee No. 5:

The Committee reviewed the Report of the Emergency Care Committee, paragraph 1 on page 17.2, beginning with the second sentence, and Recommendation #2, only, which called for reconsideration of the position taken last year by the House of Delegates. Representatives of two of the poison control centers in the state were present to discuss their position regarding this issue. The Reference Committee felt that Resolution M, adopted by the House of Delegates in 1980, did not support the development of regional poison control centers at the exclusion of a central center as well.

The Committee feels that item #2, on page 17.4, is not a recommendation, but is a statement with which the Reference Committee agrees, and is accepted as clarification of KMA policy on this issue. The Committee recommends that this section of Report No. 17 be filed.

Resolution I

Jefferson County Medical Society

Reauthorization of the Clean Air Act

WHEREAS, the Clean Air Act has resulted in significant improvement in U. S. air quality during the past decade through establishment of the following criteria:

1. Air quality standards set at levels to protect the health of all the people, including susceptible members of the population (the young, the elderly, and people with pre-existing heart and lung ailments), with an adequate margin of safety.
2. Applicable 1982 and 1987 deadlines by which dirty air regions must attain the health-based air quality standards.
3. A policy aimed at protecting clean air in national parks and other undeveloped regions of the country.
4. Requirements for urban areas to reduce vehicle emissions through transportation control measures, including vehicle exhaust testing.
5. Requiring pollution sources to control emissions to the lowest possible level.
6. Addition of regulations to curb the growing problem of toxic air pollutants, fine particulates, and acid rain, and

WHEREAS, the Clean Air Act must receive Federal reauthorization or go out of existence, and

WHEREAS, air pollution poses a serious health threat to residents living in Kentucky, and

WHEREAS, as the health threat is to healthy citizens but more seriously to citizens with cardiopulmonary disease, and

WHEREAS, every citizen of the United States has the right to breathe clean, healthy air, and

WHEREAS, the protection of the air resources of Kentucky enhance the physical, social and economic well-being of its inhabitants, and

WHEREAS, the price of human life and health are immeasurable, now therefore be it

RESOLVED, that the KMA endorse reauthorization of the Clean Air Act.

Recommendations, Reference Committee No. 5:

Reference Committee No. 5 reviewed Resolution I on Reauthorization of the Clean Air Act (Jefferson County Medical Society) without hearing any opposition from the floor.

Reference Committee No. 5 recommends adoption of this Resolution.

Resolution J

Jefferson County Medical Society

Government Intrusion into the Practice of Medicine

WHEREAS, the intrusion of government into the practice of medicine tends to generate over regulation and arbitrary control leading to inflexible limits upon the quality and availability of care, often resulting in unnecessary restriction of patient choice and inflation of the cost of medical care, and

WHEREAS, the most recent example of such government intrusion is the absolute and discriminatory restriction imposed by the Commonwealth of Kentucky on acute care hospital bed construction in Fayette and Jefferson Counties, which is against the best interest of all citizens of Kentucky, and

WHEREAS, this arbitrary intrusion upon the practice of medicine by the Commonwealth of Kentucky, apparently based in part on a number provided by Health Care Planners indicating an excess of hospital beds in these two counties, does not relate to the realities of medical care in these two areas, and

WHEREAS, this ill-conceived and absolute restriction imposed by the Commonwealth of Kentucky does not recognize that there are hospitals in these areas that have different missions and different service areas; nor does it recognize that at the present time there are hospitals in these areas that are unable to fully and adequately meet the needs of patients due to restricted facilities, and

WHEREAS, mechanisms currently exist to evaluate and approve hospital planning and building on a hospital-by-hospital basis, and

WHEREAS, medical technology and health care delivery are expanding requiring an ongoing reassessment of hospital needs, and

WHEREAS, medical staffs and the KMA have peer review mechanisms in place, and

WHEREAS, failure by the Commonwealth of Kentucky, in particular the Governor and the Department for Human Resources, to recognize the above realities, provides a threat to the health and well-being of citizens requiring hospital care, now therefore be it

RESOLVED, that the Kentucky Medical Association express itself in opposition to the further intrusion of government into the practice of medicine because the extended moratorium placed on hospital bed construction in Fayette and Jefferson Counties is proving detrimental to the health and care of people of the Commonwealth, not only in these counties, but also to citizens throughout the State who are referred there for specialized care.

Recommendations, Reference Committee No. 5:

Reference Committee No. 5 reviewed Resolution J on Government Intrusion into the Practice of Medicine (Jefferson County Medical Society). The Committee supports this Resolution with the following substitute "Resolved:"

"RESOLVED, that the Kentucky Medical Association adopt as policy opposition to the current moratorium on hospital bed construction in Fayette and Jefferson Counties imposed by the Governor and work to remove the moratorium."

Reference Committee No. 5 recommends adoption of Resolution J as amended.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 5 as a whole.

I would sincerely like to thank the other members of the Committee: Bob M. DeWeese, M.D., Louisville; Kenneth M. Eblen, M.D., Henderson; David C. Liebschutz, M.D., Danville; and Edwin J. Nighbert, M.D., Lexington, for their work. A special thanks to Ms. Sharon Heckel for her assistance.

REFERENCE COMMITTEE NO. 5

R. D. Pitman, M.D., Williamsburg, Chairman
Bob M. DeWeese, M.D., Louisville
Kenneth M. Eblen, M.D., Henderson
David C. Liebschutz, M.D., Danville
Edwin J. Nighbert, M.D., Lexington

• Editorial Note: Unless otherwise indicated, the Reference Committee action on each report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

Reference Committee No. 6

Nelson B. Rue, M.D., Bowling Green
Chairman

Reference Committee No. 6 considered the following reports and Resolution:

35. Report of the Judicial Council
36. Report of the Rural Kentucky Medical Scholarship Fund
37. Report of the Physician-Attorney Liaison Committee
38. Report of the KMA-Kentucky Nurses Association Joint Practice Committee, with the following **exceptions**:
Paragraph 2 on page 38.2, and Recommendation No. 2—referred to Reference Committee No. 3
39. Report of the Membership Committee
40. Report of the Placement Services Committee
41. Report of the Committee on Constitution and Bylaws
42. Report of the McDowell House Board of Managers Resolution M—Charter of Christian County Medical Society (Jere C. Robertson, M.D., and J. K. Conlan, M.D.)

ITEMS FOR CONSENT

Reference Committee No. 6 reviewed the following items and recommends that they be placed on the Consent Calendar with praise to the Committees for a job well done:

35. Report of the Judicial Council—filed
36. Report of the Rural Kentucky Medical Scholarship Fund—filed
37. Report of the Physician-Attorney Liaison Committee—filed
38. Report of the KMA-Kentucky Nurses Association Joint Practice Committee, with the following **exceptions**: Paragraph 2 on page 38.2, and Recommendation No. 2—referred to Reference Committee No. 3—adopted (Note: Appears in brackets in Journal)
39. Report of the Membership Committee—filed
40. Report of the Placement Services Committee—filed
42. Report of the McDowell House Board of Managers—filed

Report of the Judicial Council

The Judicial Council has dealt with an active agenda again this year and has regularly met every other month.

It was noted with satisfaction that a description of the Judicial Council's operations was developed by the Ad Hoc Coordinating Committee on Peer Review, and has appeared in the June issue of the *KMA Journal*. We would urge the attention of the membership to this material for its information and use. As described in this material, a new Peer Review Council has been established, which helps direct questions and complaints of various natures to the appropriate component of the total peer review system.

As indicated in the operations procedures, the Council's major sources of referral are peer review committees,

component Judicial Councils, the State Board of Medical Licensure, individual patients, third parties and the membership of the Association.

While the number of active cases is sometimes substantial, the Council is gratified at the role it has been able to play, not only in ameliorating simple dissatisfactions, but in trying to arrive at fair and equitable decisions concerning questions of ethical conduct. The actual number of items considered is too great to discuss here, but some which are of general interest are highlighted.

Due to some changes to the "Opinions and Reports" of the AMA Judicial Council and litigation and legal questions at the national level, a number of inquiries were received concerning physician advertising. To satisfy this question, the Council developed the following opinion:

At this time there is no direct prohibition on advertising in the statement of the principles of ethics of the AMA. The ethical prohibition against advertising that is clearly false or misleading should still apply.

[The AMA has since developed a comprehensive discussion of this issue which is published in its latest version of the *Current Opinions of the Judicial Council*. It does not vary, in summary, with the KMA Council position.]

In a related situation concerning the ethical propriety of second opinions, an inquiry was received as to whether or not a physician contacted for a second opinion should perform the surgical procedure. The Council made the following ruling concerning three hypothetical situations in this context:

1. If consultation is requested by the original physician, it would be unethical for the second physician to take over the case;

2. If the second opinion is requested by the patient, and the patient decided to have the second physician perform the surgery, it would be ethical for him to do so, as this would reflect the patient's freedom of choice. The Council wished to note, however, that it would be appropriate for the patient to notify the attending physician that the second physician had been requested to perform the procedure;

3. In the case of certain insurance companies requesting a second opinion, it would depend upon the policy of the individual company. Some third-party carriers would not allow the second physician to perform the service. Regardless of carrier policy, the Council felt it might be ill advised to perform the procedure, if the second opinion was requested by a third-party carrier.

Similarly, the Council was asked to consider the propriety of a physician testifying for both the complainant and the defendant on medical matters. It was determined that if the physician were the treating physician, he could, of course, describe what happened for the benefit of all concerned, but could not be considered an "outside" expert witness. If he were the treating physician and was asked for consultation by the defendant's attorney, he should first obtain the patient's permission.

A recurring question was posed relating to charges by physicians for providing information necessary to settle

insurance claims. The Council reaffirmed an earlier position which had originally been passed on by the AMA Judicial Council to the effect that routine claim forms should be prepared without charge, but that a charge might be made for more complex reports, in keeping with local custom.

In a matter relating to a facility which routinely performs abortions, some questions were raised concerning medical operations. Because a physician was not in charge of the facility, consideration had to be given to the appropriate statutory authority for assurance of quality of care. To satisfy the quality question, contacts were made with both the Board of Medical Licensure and the state Certificate of Need Board for monitoring of the situation.

At one point, several inquiries were received concerning the appropriateness of the use of human chorionic gonadotropin (HCG) for weight reduction purposes. While the Council would not comment on specific weight reduction regimens, it did reaffirm the AMA position on HCG, which follows:

The KMA Judicial Council reaffirms the AMA position on HCG, that no convincing scientific evidence exists that human chorionic gonadotropin has any pharmacologic effect in weight reduction. Hence, claims to the public that such effects do occur are a misrepresentation of the scientific facts. A request has been made by the State Board of Medical Licensure that physicians in Kentucky voluntarily disassociate themselves from lending their names to these clinics.

The Council was asked to consider whether or not it should make recommendations concerning the membership status of physicians placed on probation by the Medical Licensure Board. The Council ruled that it would not be appropriate to take action against a physician's membership in KMA solely because he had been placed on probation by the Medical Licensure Board.

In several of the matters considered by the Council, it became quickly apparent that the lack of communication between the patient and the physician was the root of the problem. This was most often expressed in the unavailability of information from the physician. The Council is sensitive to the fact that all physicians are quite busy, and that the relating of simple and continuous details can become counterproductive. However, all physicians are urged to focus their attention on the importance of communication with patients and their relatives, particularly during periods of hospitalization. An equally recurring problem concerns the providing of itemized statements to patients. The Council would again encourage all physicians to make such statements available to patients upon request.

This year marks the end of the tenure of Doctor James O. Willoughby on the Judicial Council, and the Chairman and the members would like to express their thanks for his efforts and their appreciation for a personable companion for the enjoyable and fruitful years he has served. The Council would also like to thank the membership for its support and confidence.

Glenn W. Bryant, M.D., Chairman

Report of the Rural Kentucky Medical Scholarship Fund

The Rural Kentucky Medical Scholarship Fund, since its incorporation, has been actively reorganizing its committees and establishing new priorities to meet the needs of communities in rural areas with health manpower shortages.

As indicated last year, the Fund had depleted its reserves and was forced to deny five applicants loans. This year we received 25 applications, but were only able to finance 13 new loans. The Fund made a total of 45 loans which represents an investment of over \$180,000. We are continuing our solicitation program and are encouraging each member of the KMA to make a substantial contribution to one of the oldest and most successful Scholarship Funds in the country. Your tax deductible contribution would greatly aid us in meeting the needs of rural Kentucky, and we hope you will consider supporting the program.

The Fund is now redesignating areas that are acceptable for practice. A population to physician ratio was adopted to determine which areas have the greatest need. This will hopefully channel more physicians to these areas.

A national survey that the Fund participated in two years ago indicated that we have one of the most successful scholarship programs of its kind in the nation. Our program has only been restrained due to a lack of sufficient resources. The state is aware of these facts and the continued shortage of physicians in rural Kentucky. The Department for Human Resources, Bureau for Human Services and the Bureau of Vital Statistics are currently working with the Scholarship Fund in developing a data base on our program in the placement and retention of physicians in rural areas. The study has just commenced, and hopefully their findings will indicate the need for more support from the state and federal grants to increase the program.

The National Health Service Corps has also contacted the Scholarship Fund to see if a joint undertaking could be coordinated to combine our efforts in placing physicians in rural areas. The Board is continuing to pursue these discussions and will work with the KMA to insure optimum utilization of these physicians.

A new era in the Scholarship Fund's history has begun. Tremendous work has already been undertaken with more yet to be done. I am indebted to the Board members and staff for their diligence and perseverance. I would like to thank the Board members for their hard work and KMA for its continued support.

Henry Spalding, M.D., Chairman

Report of the Physician-Attorney Liaison Committee

The Physician-Attorney Liaison Committee completed a most successful year since its original formation by the KMA House of Delegates and the Kentucky Bar Association.

At the time of writing this report, we have received only two complaints and these should be handled very competently by mail. The success of this joint committee can best be described as one of increased knowledge, understanding and mutual cooperation between two most distinguished professions.

We recognize that problems still exist between the professions, and that there will be a need for this Committee to remain available for consultation and review. Definite inroads to solution of problems between physicians and attorneys can still best be settled through the non-judicial, non-formal process the Committee provides.

The Committee urges each member to read and be aware of the Interprofessional Code which fosters understanding between physicians and lawyers and affords a continuing liaison for interprofessional cooperation. By its very existence the Committee promotes understanding and discourages unnecessary and sometimes costly litigation not in the best public and personal interest of the parties or their professions.

Thomas M. Marshall, M.D., Chairman

Report of the KMA-KNA Joint Practice Committee

With the exception of paragraph in brackets and Recommendation 2

The KMA-KNA Joint Practice Committee did not meet during the 1980-81 Associational year. The National Joint Practice Committee was discontinued jointly by the AMA and the ANA as of January 1, 1981. During this organizational year the KNA discontinued its portion of the Joint Practice Committee.

The major agenda regarding Joint Practice during this year relates to implementation of the "new" Nurse Practice regulations. Discussions regarding this interface of nursing and medicine have taken place in the Advisory Council, composed of nurses and members of the Kentucky Medical Licensure Board. The Board of Trustees has followed very closely the proposed Nurse Practice regulations and has made several proposals in areas where conflicts exist.

The nursing profession is undergoing profound changes in its relationship with hospitals, physicians and patients. Organized medicine should be aware of and seek to be involved in these changes, and insure that quality of care and the best interests of patients and the public are observed.

The real shortage of nursing exists in the hospital staff area and should be addressed by our lawmakers, nursing schools, the medical profession and other institutions of higher education. To promote and enhance the education, recognition and status of nurses involved in the direct care of patients, the AMA House of Delegates, at its 1981 Annual Meeting, adopted the following Resolution:

"RESOLVED, That the American Medical Association initiate and join with other appropriate organizations in the promotion of education for, and recognition of, medical-surgical nursing, and in elevating the

prestige and status of registered nurses who are devoted to direct patient care (particularly bedside nursing)."

Your Committee agrees that the adoption of this Resolution by the AMA was appropriate.

Equitable solutions to problems that exist between hospitals, physicians and nurses are available and can be implemented provided mutual cooperation and respect can be maintained. However, the Committee does not believe that a standing committee is necessary to address these problems. The Committee recommends that the KMA-KNA Joint Practice Committee be discontinued and that the Board of Trustees appoint, as needed, ad hoc committees to address concerns as they arise. The Committee further believes that joint physician-nurse committees, organized at the local hospital level with the cooperation of hospital administration, can be very beneficial in addressing the mutual concerns of the professions.

[This Committee recommends that the Kentucky Medical Association continue to oppose efforts by the legislature, state or federal government to promote the concept of Independent Practice and the prescribing of drugs by nurses.]

The Committee wishes to express its appreciation to the members of the Association for their assistance and guidance. Also, as Chairman, I thank each Committee member for his service to the Association.

Kenneth P. Crawford, M.D., Chairman

RECOMMENDATIONS:

1. The Committee recommends that the KMA-KNA Joint Practice Committee be discontinued and that the Board of Trustees appoint, as needed, ad hoc committees to address concerns as they arise.
- [2. This Committee recommends that the Kentucky Medical Association continue to oppose efforts by the legislature, state or federal government to promote the concept of Independent Practice and the prescribing of drugs by nurses.]

Report of the Membership Committee

The Association's life blood is its membership. Without a strong and unified membership we cannot meet the demands that the public and government place on us.

The Membership Committee originally was part of the Membership and Placement Services Committee. This past year this Committee was divided into two separate entities, so each segment could actively pursue its own charge. The Membership Committee was reorganized and is composed of the Delegates and Alternate Delegates to the AMA, Alternate Trustees from various districts and representatives from the large metropolitan areas. Our goal is to identify our potential members, obtain their support and retain their involvement.

The Association has over 75% of the practicing active physicians as members. We continue to grow each year, but not proportionately to the number of new physicians

entering practice each year. The Committee is developing a comprehensive program for membership recruitment which will utilize the Association's new computer system and will require the support of the membership. We hope to present our recommendations to the House at its September meeting. If we are able to maintain our proposed timetable we hope to implement our new program by the beginning of 1982. The Committee is also responsible for retaining members and requests the assistance of each member to check with their colleagues to ensure they have a current membership. The Committee will be developing a more detailed program to use in retaining members, but plans to finish work on its recruitment program first.

As part of our membership recruitment efforts, the Committee works actively with students and residents to secure their support. The old Committee began working with the students two years ago to develop a Medical Student Section. A Constitution and Bylaws has been drafted and is currently being prepared for consideration by the House. The Committee is proud to report that over 500 medical students are now members of the Association. The Medical Student Section will seek to involve the students in Association activities and prepare them for their involvement in organized medicine when they enter practice. A similar section is planned for the resident physicians. However, the Committee plans to work on increasing the number of resident members before pursuing this program. The Membership Committee will advise these groups and serve as liaison between the students and the Board of Trustees and the House of Delegates.

The work of the Membership Committee has just begun but it will take the support of the entire Association to meet our new membership recruitment and retention goals. I have chaired this Committee for only a few short months, but feel the Committee will meet the challenge presented to us.

Harold Haller, M.D., Chairman

ADDENDUM

The Membership Committee, due to its recent reorganization, had not had sufficient time to develop recommendations for the Association to consider prior to the deadline for final reports. However, the Committee felt it important to meet again before the Annual Meeting of the House in order to finalize some of the steps it plans to utilize in the near future.

A comprehensive program which will break membership into five categories has been developed. The five categories will center on various levels of the membership including student, resident and the practicing active physician. The new physician entering practice for the first time will be heavily recruited as will the physician who has been in practice less than five years. The physician who has been in practice five or more years will be recruited periodically; however, the Committee will seek to identify which of these individuals will never be members of the Association. These individuals will be removed from all recruiting efforts

with the main thrust of activities being directed at the new physicians, residents and medical students.

The Committee hopes to initiate active recruiting in these five categories by January of 1982. Whereas, the majority of the work and recruiting efforts will be carried out by the Committee and staff, it is extremely important for the membership to assist in the membership development. The Committee is also considering May 1982 as Membership Recruitment Month. During that month the Committee hopes to coordinate a massive recruitment effort with the assistance of the current membership in hope they will recruit their non-member colleagues. The Committee cannot overly stress the importance and need for the membership to share in the responsibility of recruiting new members.

The Committee realizes that the efforts in recruiting depend greatly on the assistance and support of the county medical society officers and their staffs. The Committee has had an opportunity to meet with representatives of the major county societies and is pleased to report that a spirit of mutual cooperation has resulted from this meeting. The efforts of the counties and the state will be coordinated for a common goal. Our main goal will be to push for Federation membership (county, state, national).

The Membership Committee is taking the necessary steps to insure that the membership receives additional benefits that are not available to non-members. Added benefits that the Committee is considering are the publication of an annual membership roster, a special plaque or certificate for each new member and special reduced rates for seminars and workshops. The Committee will also publish additional information on the activities of the Association and prepare brochures, both on the KMA and individual county efforts.

The Membership Committee will also be participating in the 1981 Physician Recruitment Fair to provide information to resident physicians who are considering practice in Kentucky.

RECOMMENDATION:

1. The Membership Committee requests the House's support in its recruiting and retention efforts.

Report of the Placement Services Committee

The Placement Services Committee was created as a result of the splitting of the Membership and Placement Services Committee into two separate entities. This division resulted out of a need to provide sufficient time for each of these areas to be covered adequately.

The Placement Services Committee serves as a clearing-house for information on physicians seeking and communities offering practice opportunities. Monthly, a "Physicians Seeking" list is published and submitted to each community that is searching. Quarterly, a listing of all practice opportunities is published.

Several years ago, the Committee undertook the sponsorship of the Physician Recruitment Fair. In October 1980,

the second annual one-day program was held in Lexington at the University of Kentucky College of Medicine. Over 150 community leaders participated in the morning session, which featured a half-day session on the art of recruiting physicians. At the afternoon session, community leaders met with over 150 prospective candidates, which not only included physicians, but residents and medical students. There were 55 actual communities represented at this program. The Committee was extremely pleased with last year's program because registration was double that of the previous year.

It is with great expectation that the Committee is now finalizing plans for the third annual Physician Recruitment Fair. The program will be held on October 17, 1981, at the Ramada Inn/Bluegrass Convention Center. This year's program will feature "How to Do" workshops for community leaders, special workshops for resident physicians, and an expanded exhibit hall. The exhibit hall, where communities display their attractions, has been expanded to allow 55 exhibits, providing twice the exhibit space of last year. Ninety-five percent of the communities participating last year have voiced interest in again being involved. Although we do not have the exact figures, we are aware of several communities that have obtained physicians for practice in their areas as a direct result of contact made at the Recruitment Fair.

As Chairman of the original Membership and Placement Services Committee, I feel it is regrettable that the Committee had to be split, but the responsibilities of each segment precipitated the change.

The members of both committees have provided tremendous support to the development of these programs. I would like to take this opportunity to thank them and staff for their involvement.

John M. Baird, M.D., Chairman

Report of the McDowell House Board of Managers

During the past year, the Board of Managers of the McDowell House has met on four occasions at quarterly intervals in the McDowell House. Attendance at these meetings, composed of both physician members of the KMA and lay members, has always been exceptional. Interest in the House by the Board is demonstrated throughout the year.

The Kentucky Heritage Commission allotted \$30,000 for repairs to the House. Of this amount, \$10,000 was for a complete listing of the details of the structure of the House and Apothecary Shop, which included all changes and unusual repairs through the years. This should prove of value in the years to come in reference to the constant care which the House requires.

Repairs to the House have been carried out and include replacement of the roof on the back "L" of the House with wooden shingles such as those used in the early 19th century, some external painting, and particularly repair of plaster throughout the House, especially in the back hall. This

has been followed by painting of the entire interior of the House and especially the woodwork. All of the floors, in addition, have been redone and now are in excellent condition.

In order to complete this phase of repairs, it was necessary to allocate \$5,000 from the reserves kept for that purpose. A number of items remain which will require further repairs during the coming year. It is obvious that a beautiful 181-year-old House requires constant attention and repair. At the present moment, it is in excellent condition. As a result of solicitation activity during the past year, the Friends of the McDowell House contributed \$9,835. Gifts restricted solely to the Endowment Fund amounted to \$1,660. Approximately 100 members of the American College of Obstetricians and Gynecologists (who have contributed \$21,000 in the past 20 years) will be visiting the McDowell House in September.

The total expenses for the McDowell House from July 1, 1980, through May 31, 1981, were \$29,804.76. The financial condition of the House remains in a positive balance at this time, but added expenses for repairs in the future are to be expected.

Laman A. Gray, Sr., M.D., Chairman

End of Consent Calendar Items

Report of the Committee to Study the Constitution and Bylaws

The KMA Committee to Study the Constitution and Bylaws met on April 15, pursuant to the directive of the Board of Trustees, to consider three proposed changes to the Bylaws.

The first of these items pertains to the limitation currently imposed on the number of consecutive full terms available to an individual as Secretary-Treasurer of the Association. It was felt that this was an unrealistic restriction which potentially works to the detriment of the Association. It is for this reason that the change set forth within Recommendation 1 is offered for your approval.

The second matter considered by the Committee relates to Student Membership. A proposal has been made to alter the Bylaws in such a fashion as to reflect the existence of a Medical Student Section which would be governed by its own Constitution and Bylaws. In recognition of this proposal, the Committee offers to you Recommendation 2.

The last item considered by the Committee deals with a situation which has been discussed previously in this forum. The problem is one of establishing a Bylaws procedure to be followed when an individual county desires to withdraw from a multi-county society. After some discussion it was felt that the format outlined in Recommendation 3 is appropriate and will insure the maintenance of procedural fairness.

The recommendations which we have referred to are set forth in legislative amendment format with the new proposals being underscored (appears in bold in *Journal*) and the language to be deleted set off by parentheses and accented by lines through the wording.

These three recommendations are the result of a substantial amount of consideration by the members of the Committee, and the Chairman would like to take this opportunity to express his appreciation to those individuals for their diligent attention and effort.

Robert L. McClendon, M.D., Chairman

RECOMMENDATIONS:

1. CHAPTER IV, ELECTION OF OFFICERS AND DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Section 1. The President-Elect and the Vice President shall be elected from the state at large for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice-President and on any ballot where a majority is not obtained, the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast. Delegates to the AMA and their alternates shall be elected from the state at large for terms of two years, with the provision that no more than one delegate and no more than one alternate delegate shall be elected from one component society. The Speaker of the House of Delegates, the Vice-Speaker and the Secretary-Treasurer shall be elected for terms of three years. ~~(but no member shall be eligible for election to more than two consecutive full terms as Secretary-Treasurer)~~ Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that one-third of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of President, President-Elect, Vice President, Secretary-Treasurer, Speaker or Vice-Speaker of the House of Delegates, Trustee or Alternate Trustee who has not been an active member of the Association for at least three years.

2. CHAPTER I, MEMBERSHIP

Section 2 (f) Student Members. Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in (any) **an accredited medical school in the United States** shall be eligible for (student) membership (.) **in the Medical Student Section of the Kentucky Medical Association. This Medical Student Section shall be governed by its own Constitution and Bylaws, which Constitution and Bylaws shall not be in conflict with those of the parent Kentucky Medical Association. In order to insure the absence of any such conflict, the initial Constitution and Bylaws of the Student Section, as**

well as any later amendments thereto, shall be given prior approval by a majority of all Delegates present at the Annual Meeting of the KMA House of Delegates. (They) **Individual students** may apply directly to the State Association for membership and be assigned to the county society of their choice. (The membership year for student members shall run from October 15 to October 14 of the next year.) **The determination of such membership shall be coincident with the academic year of the institution in which the student is enrolled.** Student members may not hold office in the State Association, but may be voting members of any State Association committee to which they are appointed. **Student members may, however, hold office within the Student Section in accord with the provisions of that Section's Constitution and Bylaws.** (They) **The Student Section** will be represented in the House of Delegates through one voting representative, a student member of (KMA) **the Kentucky Medical Association** elected by the (student-body-at) **Student Section membership attending** the University of Kentucky College of Medicine and one voting representative, a student member of the Kentucky Medical Association elected by the (student body at) **Student Section membership attending** the University of Louisville School of Medicine.

3. CHAPTER XII, COUNTY SOCIETIES

Section 4. (Add following at end of section) **A multi-county component society may be disaggregated so that individual county societies regain independent status when a majority of the members in one county indicate their desire to reorganize. At that time, the county society shall forward a petition, in the form of a resolution, to the KMA Headquarters Office to be submitted to the House of Delegates at its next scheduled meeting, requesting recognition as a county society and issuance of a charter, in accord with Chapter XII, Section 1 of the KMA Bylaws.**

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed the report of the Committee on Constitution and Bylaws, commends its efforts and recommends the adoption of Recommendation No. 2. Reference Committee No. 6 recommends that Recommendation No. 3 be rejected, and the following wording be adopted in its place:

A multi-county component society may be disaggregated so that an individual county society may regain independent status when a majority of the members in that county indicate their desire to reorganize. At that time the members from the withdrawing county shall forward a petition containing the signatures of a majority of the members in that county to be validated by KMA. The withdrawing county shall further forward a resolution to the KMA Headquarters Office to be submitted to the House of Delegates at its next regular meeting, requesting recognition as a county society and issuance of a

charter, in accord with Chapter XII, Section 1 of the KMA Bylaws. Once this charter is issued, the new county society shall become a recognized entity at the beginning of the following KMA dues year and those counties remaining within the original multi-county unit may continue to function under their pre-existing charter.

Resolution M

Jere C. Robertson, M.D.

J. K. Conlan, M.D.

Charter of Christian County Medical Society

Reference Committee No. 6

RESOLVED, that the House of Delegates establish and issue a charter to the Christian County Medical Society.

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed Resolution M—Charter of Christian County Medical Society, (Jere C. Robertson, M.D., and J. K. Conlan, M.D.). It was the opinion of Reference Committee No. 6 that Resolution M does not meet the current nor the proposed criteria for disaggregating a currently recognized component society and it is recommended that the House of Delegates reject this Resolution.

Dwight L. Blackburn, M.D., Chairman of the Board of Trustees, was recognized who read the following Substitute for Resolution M and moved its adoption on behalf of the Board of Trustees. The motion was seconded from the floor, and on a call for the vote, the following Substitute Resolution was adopted:

WHEREAS, a number of physicians in Christian County have indicated a desire to disaggregate from the Pennyrite Multi-County Medical Society and reform the Christian County Medical Society as a component society of the Kentucky Medical Association, now therefore be it

RESOLVED, that the House of Delegates of the Kentucky Medical Association instruct the Board of Trustees to act for the House and grant a charter to the newly proposed Christian County Medical Society upon receipt of documentation of compliance with Chapter XII, Section 4 of the KMA Bylaws as currently adopted.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 6 as a whole as amended.

I would like to thank the members of the Reference Committee, Doctors Michael B. Flynn, Allen E. Grimes, N. H. Talley, and Cecil D. Martin for their thoughtful consideration and careful deliberation of the remarks presented. A special thanks to our secretary, Lucy C. Callahan.

REFERENCE COMMITTEE NO. 6

Nelson B. Rue, M.D., Bowling Green, Chairman
Michael B. Flynn, M.D., Louisville
Allen E. Grimes, M.D., Lexington
N. H. Talley, M.D., Princeton
Cecil D. Martin, M.D., Carrollton

Election of Officers

Walter L. Cawood, M.D., Ashland, Chairman of the Nominating Committee, presented the slate of nominees for general officers, and each was elected by acclamation:

President-Elect	Dwight L. Blackburn, M.D., Berea
Secretary-Treasurer	S. Randolph Scheen, M.D., Louisville

The newly installed President, Ballard W. Cassady, M.D., Pikeville, was then escorted to the podium by Past Presidents Parks and Hull.

Doctor Cawood announced the results of the election for AMA Delegates as follows:

AMA Delegate	David B. Stevens, M.D., Lexington
AMA Delegate	Fred C. Rainey, M.D., Elizabethtown
AMA Alternate Delegate	Lee C. Hess, M.D., Florence
AMA Alternate Delegate	Wally O. Montgomery, M.D., Paducah

Doctor Cawood then submitted the following nominations for the offices of Trustee and Alternate Trustee on behalf of the district nominating committees:

Fifth District	Bob M. DeWeese, M.D., Louisville
Alternate	E. Dean Canan, M.D., Louisville
Sixth District	Nelson B. Rue, M.D., Bowling Green
Alternate	J. Michael Pulliam, M.D., Franklin
Eighth District	Robert E. Smith, M.D., Covington
Alternate	William R. Yates, M.D., Crescent Springs
Eleventh District	Don E. Cloys, M.D., Richmond
Alternate	Clifford E. Kerby, M.D., Berea
Fifteenth District	Donald C. Barton, M.D., Corbin
Alternate	Emanuel H. Rader, M.D., Pineville

It was moved and seconded that the above slate of nominees be elected. Motion carried.

Election of 1982 Nominating Committee

The following physicians were elected by the House of Delegates to serve as the Nominating Committee for the 1982 Annual Meeting:

Carl Cooper, Jr., M.D., Bedford, Chairman
James A. Baumgarten, M.D., Owensboro
Harold T. Faulconer, M.D., Lexington
Thomas L. Heavern, Jr., M.D., Highland Heights
Walter I. Hume, Jr., M.D., Louisville

It was announced that the Board of Trustees would hold its reorganizational meeting on Thursday at noon in the Kentucky Room in the Ramada Inn.

Doctor Crowder adjourned the 1981 session of the House of Delegates at 9:00 p.m.

1981 CONSTITUTION AND BYLAWS OF THE KENTUCKY MEDICAL ASSOCIATION

Revised September 23, 1981

CONSTITUTION

Article I.	Name of the Association
Article II.	Purpose of the Association
Article III.	Component Societies
Article IV.	Composition and Meetings of the Association
Article V.	Officers
Article VI.	House of Delegates
Article VII.	Districts, Sections and District Societies
Article VIII.	Board of Trustees
Article IX.	Funds and Expenses
Article X.	Referendum
Article XI.	The Seal
Article XII.	Amendments
Article XIII.	Definitions

Article I. Name of Association

The name and title of this organization shall be the Kentucky Medical Association.

Article II. Purpose of the Association

The purpose of the Association shall be to federate and bring into compact organization the entire medical profession of the State of Kentucky and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge; the advancement of medical science and charity; the evaluation of the standards of medical education; the enactment and enforcement of just medical laws; the promotion of friendly intercourse among physicians and the guarding and fostering of their material interests; the protection of the members thereof against unjust assaults upon their professional care, skill or integrity; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

Article III. Component Societies

Component societies shall consist of those medical societies which hold charters from this Association.

Article IV. Composition and Meetings of the Association

The Association shall consist of the members of the component societies, but the House of Delegates shall have authority to adopt such bylaws regulating the admission and classification of members as it may deem advisable. The Association shall hold an Annual Meeting and such Special Meetings as may be called pursuant to the bylaws.

Article V. Officers

Section 1. The officers of this Association shall be a President, a President-Elect, a Vice-President, a Secretary-Treasurer, a Speaker and Vice-Speaker of the House of Delegates, a Trustee and an Alternate Trustee from each district that may be established; and such other officers as may be provided for in the Bylaws.

Section 2. The eligibility, duties and terms of office of all officers of the Association shall be as prescribed in the Bylaws.

Section 3. All officers shall serve until their successors have been elected and installed.

Section 4. All officers shall be elected by the House of Delegates at its Regular Session and shall take office on the last day of the Annual Meeting.

Article VI. House of Delegates

Section 1. The House of Delegates shall be the legislative body of the Association and shall have power, by a two-thirds vote of all the delegates present at that session, to adopt bylaws to carry out

the provisions of this Constitution and to provide for the government of the Association in any other manner not inconsistent with this Constitution. It shall meet in Regular Session, annually during the Annual Meeting of the Association, and may be called into Special Session under such conditions as may be prescribed in the bylaws.

Section 2. Delegates shall be members of and elected by component county societies in such a manner as may be provided in the Bylaws. Officers of the Association, Delegates and Alternate Delegates of the American Medical Association and five immediate Past Presidents shall be the ex-officio members of the House of Delegates and entitled to vote. All other Past Presidents and Vice-Presidents and Past Chairmen of the Board of Trustees shall be ex-officio members of the House. They shall have the right to speak and debate on the floor of the House but shall not have the right to make a motion, introduce business or an amendment, or vote.

Section 3. The House of Delegates shall elect a Speaker and a Vice-Speaker, one of whom shall preside during the meetings of the House of Delegates. The presiding officer shall not be entitled to a vote except in the event of a tie.

Section 4. The House of Delegates shall be the final judge as to the qualification of its members.

Article VII. Districts, Sections and District Societies

The House of Delegates shall divide the state into Districts composed of one or more counties, for administrative purposes. It may also provide for a division of the scientific work of the Association into appropriate Sections, and for the organization of such District Societies, composed exclusively of members of component societies, as will promote the best interests of the profession.

Article VIII. Board of Trustees

The House of Delegates shall make provision in the bylaws for a Board of Trustees composed of one Trustee from each District and such of the other officers of the Association as the House may deem appropriate, which shall be charged with the general direction of the Association's affairs during the interim between meetings of the House. The House may delegate such powers to the Board of Trustees as are not specifically required by this Constitution to be exercised by the House, and may limit the Board's powers to such extent as it may determine to be necessary or desirable, provided, however, that in no event shall the Board of Trustees have power to commit the Association to any course of action which is contrary to or at variance with any policy established by the House of Delegates.

Article IX. Funds and Expenses

The House of Delegates shall provide funds for meeting the expenses of the Association by such methods and from such sources as it may select. Funds may be appropriated by the House of Delegates to defray the expenses of the annual session, for publications, and for such other purposes as will promote the welfare of the Association and the profession.

Article X. Referendum

The membership of the Association, by written petition signed by not less than 10% of the active membership, may obtain a referendum on any question pending before the House of Delegates. The Secretary-Treasurer, upon the presentation of such a petition to him shall cause the question to be submitted to the active membership by mail, and if a majority of the active members shall signify its approval or disapproval of a certain policy or course of action with respect to the question thus submitted, the will of the majority shall determine the question and shall be binding upon the House of Delegates and the Association upon certification of the result of the vote by the Secretary-Treasurer to the President and Board of Trustees.

Article XI. The Seal

The Association shall have a common Seal with power to break, change or renew the same at pleasure.

Article XII. Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at the Regular Session, provided that such amendment shall have been presented in open meeting at the previous regular session, and that it shall have been sent officially to each component county society at least two months before the session at which final action is to be taken.

Article XIII. Definitions

Whenever used in this Constitution, the Articles of Incorporation or the Bylaws—

(a) "County society," "component county society," or "component medical society" means "component society."

(b) "Annual Meeting" means the annual three-day meeting of the Association.

(c) "Scientific Sessions" mean those sessions during the Annual Meeting at which scientific subjects are programmed and discussed.

(d) "Regular Session" means the regular session of the House of Delegates which is held during the Annual Meeting.

(e) "Special Session" means a special, called meeting or session of the House of Delegates.

BYLAWS

Chapter I.	Membership
Chapter II.	Annual and Special Meetings of the Association
Chapter III.	The House of Delegates
Chapter IV.	Election of Officers
Chapter V.	Duties of Trustees
Chapter VI.	Board of Trustees
Chapter VII.	Discipline-The Judicial Council
Chapter VIII.	Standing Committees and Councils
Chapter IX.	Assessments and Expenditures
Chapter X.	Rules of Conduct
Chapter XI.	Rules of Order
Chapter XII.	County Societies
Chapter XIII.	Amendments

CHAPTER I. MEMBERSHIP

Section 1. Membership in this Association shall be coterminous with membership in a component county society. No physician shall be eligible for membership in this Association unless he is a member, in good standing of a component society, nor may he maintain membership in a component county society unless he is a member, in good standing of this Association.

When a physician who meets the qualifications hereinafter set forth, is certified to the Secretary-Treasurer as a member in good standing of a component society, properly classified as to type of membership, and when the dues pertaining to his membership classification have been received by the Secretary-Treasurer of the Association, the name of the member shall be included in the official roster of the Association and he shall be entitled to all the privileges of his class of membership. Provided, however, that members in good standing from other state societies may, if admitted to membership by a component society, be accepted by KMA for membership without paying dues for the remainder of the calendar year in which the transfer is made. Provided further, that the Board of Trustees shall have power, upon written application, approved annually by the county society of which the applicant is a member, to excuse any member from the payment of dues because of financial hardship. And provided further, that the Judicial Council, after a hearing, shall have power to condition membership in this Association upon the physician's agreement to limit the scope of his practice in any manner reasonably calculated to protect the public from the adverse effects of any demonstrated frailty or disability of said member.

Section 2. Membership in the Association shall be divided into nine classes, to-wit: Active, Life, In-Training, Associate, Inactive, Student, Service, Honorary and Special.

(a) **Active Members.** The active membership of the Association shall consist of the active members of the various component medical societies. To be eligible for active membership in any component society, the applicant must be a physician who holds an unrestricted or limited license to practice medicine and surgery

in this state, and who is of good moral, ethical and professional standing. Nothing contained herein shall prevent a component society from requiring new members to occupy provisional status for a reasonable time after their admittance to membership under any classification.

(b) **Life Members.** Component societies may elect as a life-member any doctor of medicine or osteopathy who has served his profession with distinction and who has either reached the age of 70 or has retired from active practice. Life members shall have the right to vote and be entitled to the benefits of Chapter VI, Section 8 of these Bylaws, but shall not pay dues. They shall receive *The Journal* and other publications of the Association.

(c) **In-Training Members, Interns, residents, and teaching fellows** who are doctors of medicine or osteopathy and who have complied with all pertinent regulations of the Kentucky State Board of Medical Licensure. In-training members shall have the right to vote and receive all publications of the Association, but shall not be counted in determining the number of delegates to which their county society is entitled in the House of Delegates.

(d) **Associate Members.** The associate membership of the Association shall consist of the associate members of the various component medical societies. To be eligible for associate membership in any component society, the applicant must qualify under one or more of the following groups:

(1) Medical officers of the United States Army, Navy, Air Force, Veterans Administration, Public Health Service, or other federal governmental service while on duty in the State, but shall not be deemed to include physicians employed on a full-time basis by the Veterans Administration.

(2) Dentists may be invited to become Associate members.

(3) Physicians residing and/or practicing in communities bordering Kentucky who are active members of their home state and county societies and who wish to become members of KMA on an other than active basis may become Associate Members.

Associate members shall not have the right to vote nor to hold office, but shall receive *The Journal* and other publications of the Association.

(e) **Inactive Members.** The inactive membership of the Association shall consist of the inactive members of the various component county societies. Any doctor of medicine licensed to practice medicine in Kentucky who is not engaged in the practice of medicine but who is otherwise eligible for active membership in the Association may be admitted to inactive membership by any component county society. Inactive members shall not have the right to vote nor hold office, but shall receive *The Journal* and other publications of the Association.

(f) **Student Members.** Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in an accredited medical school in the United States shall be eligible for membership in the Medical Student Section of the Kentucky Medical Association. This Medical Student Section shall be governed by its own Constitution and Bylaws, which Constitution and Bylaws shall not be in conflict with those of the parent Kentucky Medical Association. In order to insure the absence of any such conflict, the initial Constitution and Bylaws of the Student Section, as well as any later amendments thereto, shall be given prior approval by a majority of all Delegates present at the Annual Meeting of the KMA House of Delegates. Individual students may apply directly to the State Association for membership and be assigned to the county society of their choice. The determination of such membership shall be coincident with the academic year of the institution in which the student is enrolled. Student members may not hold office in the State Association, but may be voting members of any State Association committee to which they are appointed. Student members may, however, hold office within the Student Section in accord with the provisions of that Section's Constitution and Bylaws. The Student Section will be represented in the House of Delegates through one voting representative, a student member of the Kentucky Medical Association elected by the Student Section membership attending the University of Kentucky College of Medicine and one voting representative, a student member of the Kentucky Medical Association elected by the Student Section membership attending the University of Louisville School of Medicine.

(g) Service Members, Members of the Association in good standing who enter military service and are ineligible for Association membership shall be classified as service members. Service Members shall not be required to pay dues. If a member in good standing enters service prior to April 1 and has paid his dues for that year, he shall receive all publications and other benefits applicable to his class of membership in the Association and shall owe no further dues until January 1 following his release. If a member in good standing enters service prior to April 1 without paying his dues for that year, he shall receive publications and other benefits but shall owe the dues applicable to his class of membership immediately following his release from active duty. Members whose dues have not been received by April 1 are not in good standing.

(h) Honorary Members. Any physician possessed of scientific attainments who is a member of a constituent state medical association and who has participated in the program of the scientific session and who is not a citizen of Kentucky may by unanimous vote of the House of Delegates be elected to honorary membership. Honorary members shall be entitled to the privileges of the floor in all scientific sessions.

(i) Special Members. Component societies may invite pharmacists, funeral directors, or other professional persons to become special members. Special members shall have no rights or obligations under these Bylaws, but may be accorded the privilege of attending and participating in the scientific meetings of the society, provided, however, that a registration fee may be required of special members who desire to attend the Annual Meeting of the Association.

Section 3. Guests of Honor. Any distinguished physician not a resident of this State may become a guest of honor during any Annual Meeting upon invitation of the Board of Trustees and shall be accorded the privilege of participating in all of the scientific work of that meeting.

Section 4. No person who is finally convicted of a felony subsequent to September 26, 1968, shall be eligible for membership in this Association unless and until, upon proper application to the Judicial Council, it is determined that he is morally and ethically qualified. Except as provided in Chapter VII, Section 4 of these Bylaws, no person who is under sentence of suspension or expulsion from any component society of this Association shall be entitled to any of the rights or benefits of membership of this Association.

CHAPTER II. ANNUAL AND SPECIAL MEETINGS OF THE ASSOCIATION

Section 1. The Association shall hold its annual and special meetings at such times and places as may be determined by the House of Delegates.

Section 2. The Annual Meeting shall consist of one or more scientific sessions, at least two meetings of the House of Delegates, and such other gatherings as may be authorized by the Board of Trustees. Each scientific session shall be presided over by the President or in his absence or disability or at his request by the President-Elect or such officers as the Board of Trustees may direct. The entire time of the scientific sessions, as far as may be, shall be devoted to papers and discussions related to scientific medicine.

Section 3. The name of a physician upon the properly certified roster of members or list of delegates of a component society which has paid its annual assessment, shall be prima facie evidence of his right to register at any meeting of this Association.

Section 4. Each member in attendance at any meeting shall register indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of the society, he shall receive a badge which shall be evidence of his right to all privileges of membership at that meeting. No member or delegate shall take part in any of the proceedings of any meeting until he has complied with the provisions of this section.

CHAPTER III. THE HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet in Regular Session at the time and place of the Annual Meeting, and shall, insofar as is practicable, fix its hours of meeting so as to give delegates an opportunity to attend the scientific sessions and other proceedings. Provided, however, that if the business interests of the Association and profession require, the Speaker, with the consent of the Board of Trustees, may convene the Regular Session in advance of the Annual Meeting, and the House may remain in session after the final adjournment thereof.

Section 2. The House may be called into Special Session by the President with the approval of the Board of Trustees, and a special session shall be called by the President on the written request of fifty duly elected delegates of the Association. The purpose of all special sessions shall be stated in the call, and all business transacted at any such special session shall be germane to the stated purpose.

Section 3. When a special session is called, the Secretary-Treasurer shall mail a notice of the time, place, and purpose of such meeting to the last known address of each delegate at least ten days before such session.

Section 4. The Speaker shall, by virtue of his office, be responsible for making all arrangements for all sessions, regular or special, of the House.

Section 5. The members of the House of Delegates shall be elected by the various component societies in the manner prescribed in Chapter XII of these Bylaws.

Section 6. In the event a component society is not represented at any meeting of the House, the Speaker shall consult with any officer of the component society who is in attendance and, with the approval of the Credentials Committee, may appoint any active member of such component society who is in attendance, as its alternate delegate. If no officer of such society is present, the Speaker may make the appointment without consultation, but with the approval of the Credentials Committee. All such appointments shall also be subject to the approval of the House.

Section 7. Forty per cent of the qualified delegates, as defined by Article VI of the constitution, shall constitute a quorum and all of the meetings of the House shall be open to the members of the Association. The House shall have the right to go into executive session whenever in its judgment such action is indicated; except that active members of the Association shall have the right to attend all executive sessions.

Section 8. Each resolution introduced into the House shall be in writing and signed by the author and presented to the Secretary-Treasurer following its introduction. If the author presenting the resolution presents it as an individual member of the Kentucky Medical Association, the resolution shall be signed by him. If the author be a group of members or component society, the resolution shall be signed by the authorized spokesman for that group. Immediately after the resolution has been introduced, it shall be referred to the proper Reference Committee before action thereon is taken.

Section 9. No resolution shall be introduced in the first meeting of the House of Delegates by any member or group of members other than the Board of Trustees unless a copy thereof was furnished to the Headquarters Office at least seven days prior to its introduction. The only exception to this shall be that a resolution which has been signed by ten or more members of the House of Delegates and of which there are sufficient printed copies to distribute to each member of the House of Delegates may be received for consideration by an affirmative vote of three-fourths of the members present and voting. No new business shall be introduced in the last meeting of the House without unanimous consent, except when presented by the Board of Trustees. All new business so presented shall require the affirmative vote of three-fourths of those delegates present and voting, for adoption.

Section 10. The House shall give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each Annual Meeting a stepping stone to further ones of higher interest.

Section 11. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein the public is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse information in relation thereto.

Section 12. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality and shall continue these efforts until every physician in every county of the State who will agree to abide by the constitution, bylaws and other rules and regulations of the Association and the appropriate component society, has been brought under medical society influence.

Section 13. It shall encourage postgraduate work in medical centers as well as home study and research and shall endeavor to have the results of the same utilized and intelligently discussed in the county societies.

Section 14. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

Section 15. It shall, upon application, provide and issue charters to county societies organized in conformity with the Constitution and Bylaws of this Association.

Section 16. The state shall be divided into the following districts:
No. 1—Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingston, McCracken, and Marshall.

No. 2—Davies, Hancock, Henderson, McLean, Ohio, Union, and Webster.

No. 3—Caldwell, Christian, Crittenden, Hopkins, Lyon, Muhlenberg, Todd, and Trigg.

No. 4—Breckinridge, Bullitt, Grayson, Green, Hardin, Hart, Larue, Marion, Meade, Nelson, Taylor, and Washington.

No. 5—Jefferson.

No. 6—Adair, Allen, Barren, Butler, Cumberland, Edmonson, Logan, Metcalf, Monroe, Simpson, and Warren.

No. 7—Anderson, Carroll, Franklin, Gallatin, Grant, Henry, Oldham, Owen, Shelby, Spencer, and Trimble.

No. 8—Boone, Campbell, and Kenton.

No. 9—Bath, Bourbon, Bracken, Fleming, Harrison, Mason, Nicholas, Pendleton, Scott, and Robertson.

No. 10—Fayette, Jessamine, and Woodford.

No. 11—Clark, Estill, Jackson, Lee, Madison, Menifee, Montgomery, Owsley, Powell, and Wolfe.

No. 12—Boyle, Casey, Clinton, Garrard, Lincoln, McCreary, Mercer, Pulaski, Rockcastle, Russell, and Wayne.

No. 13—Boyd, Carter, Elliott, Greenup, Lawrence, Lewis, Morgan, and Rowan.

No. 14—Breathitt, Floyd, Johnson, Knott, Letcher, Magoffin, Martin, Perry, and Pike.

No. 15—Bell, Clay, Harlan, Knox, Laurel, Leslie, and Whitley.

District meetings may be held as desired, and District Medical Associations may be organized as desired, according to the districts outlined above.

Section 17. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

Section 18. It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective, except as provided in Chapter VI, Section 4, and except for the selection of the recipient of the Kentucky Medical Association Award (Outstanding Layman) and Distinguished Service Award (Outstanding Physician), which selections shall be made by the KMA Awards Committee.

Section 19. A digest of proceedings of the House of Delegates shall be published and distributed to the membership annually.

CHAPTER IV. ELECTION OF OFFICERS AND DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Section 1. The President-Elect and the Vice President shall be elected from the state at large for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice President and on any ballot where a majority is not obtained, the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast. Delegates to the AMA and their alternates shall be elected from the state at large for terms of two years with the provision that no more than one delegate and no more than one alternate delegate shall be elected from one component society. The Speaker of the House of Delegates, the Vice-Speaker and the Secretary-Treasurer shall be elected for terms of three years. Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that one-third of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of President, President-Elect, Vice-President, Secretary-Treasurer, Speaker or Vice-Speaker of the House of Delegates, Trustee or Alternate Trustee who has not been an active member of the Association for at least three years.

Section 2. During the last meeting of the regular session of the House of Delegates, the Speaker of the House of Delegates shall

submit to the members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the Committee, and the person receiving the most votes shall be Chairman. In the event that the Chairman so elected is unable or unwilling to serve, or in the event of a tie, the Committee shall elect one of its members as Chairman. The Committee shall meet at such time and place as determined by the Committee Chairman or the Board of Trustees, and shall schedule an open meeting immediately after the close of the first meeting of the House at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the committee shall have a hearing. The Nominating Committee shall verify the eligibility and willingness to serve of each candidate nominated. The Committee shall accept and post for information all eligible and willing candidates proposed for offices elected from the state at large. Before noon of the day following the opening meeting, the committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nomination, or nominations, for each office to be filled, and shall formally present said nomination, or nominations, to the House at the time of the election. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation, or disability, shall be filled by appointment of the Speaker.

Section 3. The election of officers and delegates to the AMA and their alternates shall be held at the second meeting of the regular session of the House of Delegates.

Section 4. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, provided, however, that when there are more than two nominees, the nominee receiving the least number of votes on the first ballot shall be dropped and the balloting shall continue in like manner until an election occurs.

Section 5. Any member may make known his availability for any office within the gift of the Association. However, it would be regarded as unseemly for any member to actively campaign for his own election.

Section 6. The Delegates representing the counties in each District form the Nominating Committee for the purpose of nominating a Trustee and an Alternate Trustee for the District concerned. This committee shall hold a well publicized meeting open to all active members of the District concerned who are in attendance at the Annual Meeting for the purpose of discussing the nomination of the Trustee and his Alternate to serve the District. Additional nominations may be made from the floor when the Nominating Committee makes its report to the House of Delegates.

CHAPTER V. DUTIES OF OFFICERS OTHER THAN TRUSTEES AND ALTERNATES

Section 1. Except as provided in Chapter II, Section 2 hereof, the President shall preside at all scientific sessions of the Association and shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such duties as custom and parliamentary usage may require. He shall be the real head of the profession in the State during his term of office and so far as practicable, shall visit or cause to be visited on his behalf, the various sections of the State and assist the Trustees in building up the county societies and in making their work more practical and useful. He shall be reimbursed for his reasonable and necessary travel expense incurred in the performance of his duties as President.

Section 2. The President-Elect shall assist the President in visitation of county and other meetings. He shall become president of the Association at the next Annual Meeting following his election as president-elect. In the event of his death or resignation, or if he becomes permanently disqualified or disabled, his successor shall be elected by the House of delegates and shall be installed as President of the Association at its next regular session.

Section 3. The Vice President shall assist the President in the discharge of his duties, and shall perform such other duties as may be prescribed by the Board of Trustees. In the event of a vacancy in the office of the President, the Vice-President shall succeed to the office of the President.

Section 4. The President-Elect and the Vice-President, when acting for and in behalf of the President, may be reimbursed for their reasonable and necessary travel expenses incurred in the performance of their duties in such amounts as may be available out of the sum appropriated in the annual budget for traveling expenses.

Section 5. The Speaker of the House shall preside at all meetings of the House of Delegates. He shall appoint all committees of the House of Delegates with the approval of the House of Delegates. He shall be a non-voting member of said committees, and shall perform such other duties as custom and parliamentary usage may require.

Section 6. The Vice Speaker shall assume the duties of the Speaker in his absence and shall assist the Speaker in the performance of his duties. In the event of the death, disability, resignation, or removal of the Speaker, the Vice Speaker shall automatically become Speaker of the House of Delegates.

Section 7. The Secretary-Treasurer shall advise the Executive Vice President in all administrative matters of this Association and shall act as the corporate secretary insofar as the execution of official documents or institution of official actions are required. He shall perform such duties as are placed upon him by the Constitution and Bylaws, and as may be prescribed by the Board of Trustees. The Secretary-Treasurer shall demand and receive all funds due the Association, including bequests and donations. He shall, if so directed by the House of Delegates, sell or lease any real estate belonging to the Association and execute the necessary papers and shall, subject to such direction, have the care and management of the fiscal affairs of the Association. All vouchers of the Association shall be signed by the Executive Vice President or his designee and shall be countersigned by the Secretary-Treasurer of the Association. When one or more of the above-named officials are not readily available, four specifically designated representatives of the Executive Committee are authorized to countersign the vouchers, provided that in any event all vouchers of the Association shall bear a signature and a countersignature. The four members of the Executive Committee authorized to countersign vouchers shall be designated by the Board during their reorganizational meeting in September and, whenever possible should be easily accessible from the KMA Headquarters Office. All those authorized to countersign vouchers shall be required to give bond in an amount to be determined by the Board of Trustees. The Secretary-Treasurer shall report the operations of his office annually to the House of Delegates, via the Board of Trustees, and shall truly and accurately account for all funds belonging to the Association and coming into his hands during the year. His accounts shall be audited annually by a certified public accountant appointed by the Board of Trustees.

CHAPTER VI. BOARD OF TRUSTEES

Section 1. The Board of Trustees shall be the executive body of the House of Delegates and between sessions of the House of Delegates shall exercise the powers conferred upon the House of Delegates by the Constitution and Bylaws. The Board of Trustees shall consist of the duly elected Trustees and the President, the President-Elect, the Vice-President, the immediate Past-President, the Speaker, and Vice-Speaker of the House of Delegates, the Secretary-Treasurer, and the Delegates and Alternate Delegates to the American Medical Association. The Executive Committee of the Board of Trustees shall consist of the President, the Vice-President, the President-Elect, the Secretary-Treasurer, the Chairman of the Board of Trustees, the Vice Chairman of the Board of Trustees, and two trustees to be elected annually by the Board of Trustees. A majority of the full Board, to-wit, 14, and a majority of the full Executive Committee, to-wit, 5, shall constitute a quorum for the transaction of all business by either body. Between sessions of the Board, the Executive Committee shall exercise all of the powers belonging to the Board except those powers specifically reserved by the Board to itself.

Section 2. The Board shall meet daily, or as required, during the Annual Meeting of the Association and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Trustees. It shall meet on the last day of the Annual Meeting for reorganization and for the outlining of the work for the ensuing year. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided, which report shall include an audit of the accounts of the Secretary-Treasurer and other agents of this Association and which shall also specify the character and cost of all the publications of the Association during the year, and the amounts of all other property belonging to the Association, or under its control, with such suggestions as it may deem necessary. By accepting or rejecting this report, the House may approve or disapprove the action of the Board of Trustees in whole or in part, with respect to any matter reported upon therein. In the event of a vacancy in any office other than that of President, the Board may fill the same until the annual election.

Section 3. Each Trustee shall be organizer, peacemaker and censor for his district. He shall hold at least one district meeting each year

for the exchange of views on problems relating to organized medicine and for postgraduate scientific study. The necessary traveling expenses incurred by a Trustee in the line of his duties herein imposed may be paid by the Secretary-Treasurer upon a proper itemized statement but this shall not be constituted to include his expenses in attending the Annual Meeting of the Association.

Section 4. The Board shall have the authority to communicate the views of the profession and of the Association in regard to health, sanitation, and other important matters, to the public and press.

Section 5. The *Journal of the Kentucky Medical Association* shall be the official organ of the Association and shall be published under the supervision of the Board. The Editor of the *Journal* shall be elected by the Board. All money received by the *Journal* or by any member of its staff on its behalf, shall be paid to the Secretary-Treasurer on the first of each month. The Board shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs of the Association, and shall have authority to appoint such assistants to the Editor as it deems necessary.

Section 6. All commercial exhibits during the Annual Meeting shall be within the control and direction of the Board.

Section 7. In the event of the death, resignation, removal or disability of a Trustee, between sessions of the House of Delegates, the Alternate Trustee shall succeed to the office of Trustee. In the case of disability, the Alternate shall serve until the disability is removed or the Trustee's term expires, and in the absence of the Trustee, the Alternate Trustee shall vote in his place and stead.

Section 8. The Association, upon the request of any member in good standing who is a defendant in a professional liability suit, will provide such member with the consultative service of competent legal counsel selected by the Secretary-Treasurer acting under the general direction of the Executive Committee. In addition, the Association may, upon application to the Board outlining unusual circumstances justifying such action, provide such member with the services of an attorney selected by the Board to defend such suit through one court.

Section 9. The Board shall employ an Executive Vice President whose principal duty shall be to carry out and execute the policies established by the House of Delegates and the Board. His compensation shall be fixed by the Board. The Executive Vice President shall act as general administrative officer and business manager of the Association and shall perform all administrative duties necessary and proper to the general management of the Headquarters Office, except those duties which are specifically imposed by the Constitution and Bylaws upon the officers, committees, councils and other representatives of the Association. He shall refer to the various elected officials all administrative questions which are properly within their jurisdiction.

He shall attend the Annual Meeting, the meetings of the House of Delegates, the meetings of the Board, as many of the committee and council meetings as possible, and shall keep separately the records of their respective proceedings. He shall, at all times, hold himself in readiness to advise and aid, so far as is possible and practicable, all officers, committees, and councils of the Association in the performance of their duties and in the furtherance of the purposes of the Association. He shall be allowed traveling expenses to the extent approved by the Board.

He shall be the custodian of the general papers and records of the Association (including those of the Secretary-Treasurer) and shall conduct the official correspondence of the Association. He shall notify all members of meetings, officers of their election, and committees and councils of their appointment and duties.

He shall account for and promptly turn over to the Secretary-Treasurer all funds of the Association which come into his hands. It shall be his duty to receive all bills against the Association, to investigate their fairness and correctness, to prepare vouchers covering the same, and to forward them to the Secretary-Treasurer for appropriate action. He shall keep an account with the component societies of the amounts of their assessments, collect the same, and promptly turn over the proceeds to the Secretary-Treasurer. He shall, within thirty days preceding each Annual Meeting, submit his financial books and records to a certified public accountant, approved by the Board, whose report shall be submitted to the House of Delegates.

He shall keep a record of all physicians in the State by counties, noting on each his status in relation to his county society, and upon request shall transmit a copy of this list to the American Medical Association.

He shall act as Managing Editor, or otherwise supervise the publication of *The Journal of the Kentucky Medical Association* and

such other publications as may be authorized by the House of Delegates, under the guidance and direction of the Board.

He shall perform such additional duties as may be required by the House of Delegates, the Board, or the President, and shall employ such assistants as the Board may direct. He shall serve at the pleasure of the Board, and in the event of his death, resignation, or removal, the Board shall have the power to fill the vacancy. From time to time, or as directed by the Board, he shall make written reports to the Board and House of Delegates concerning his activities and those of the Headquarters Office.

CHAPTER VII. DISCIPLINE—THE JUDICIAL COUNCIL

Section 1. There is hereby created a Judicial Council composed of the Secretary-Treasurer of the Association and four members to be elected by the House of Delegates for terms of four years each. One member shall be elected from each of the traditional eastern, western, and central districts, and one member from the state at large. Members of the first Judicial Council shall be elected for terms of one, two, three, and four years, respectively so that thereafter, one member will be elected each year. The Council shall annually elect a chairman.

To be eligible for membership on the Judicial Council, a nominee shall possess at least one of the following qualifications: (1) Have served one term as an officer, trustee, or a Delegate to the AMA or (2) Have served five years as a member of the House of Delegates.

It shall be the duty of the Board of Trustees to nominate at least one candidate for each vacancy on the Judicial Council, but additional nominations may be made from the floor. Vacancies which occur between Regular Sessions of the House of Delegates, shall be filled by the Board of Trustees. No member, other than the Secretary-Treasurer shall serve more than two consecutive terms.

Section 2. The Judicial Council shall be the Board of Censors of the Association. It shall be the final arbiter of all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All charges of breach of medical ethics brought before the House of Delegates shall be referred to the Judicial Council without discussion. A member who has been convicted of a felony or of any violation of the Medical Practice Act, or who violates any of the provisions of the constitution, bylaws, or any rule or regulation of this Association, or the Principles of Ethics of the American Medical Association shall be liable to censure, fine, suspension, or expulsion upon order of the Judicial Council. Provided, however, that if in addition to discipline by the Association, the Judicial Council shall be of the opinion that the offending member's license to practice medicine should be revoked, it shall report this to the Board of Trustees as a recommendation that the Board refer the matter to the State Board of Licensure for this purpose.

Suspension shall be for a specified period during which the member shall remain liable for the payment of dues but shall not be eligible to hold office, attend business meetings or otherwise participate in Associational activities at the county, district or state levels. Upon the expiration of the period of suspension, every suspended member shall be automatically restored to all of the rights and privileges of his class of membership unless the Judicial Council determines that his conduct during the period of suspension indicates that he is unworthy of such restoration, in which event his suspension may be extended or he may be expelled.

Upon the complaint of any member or aggrieved individual involved, the Judicial Council may initiate disciplinary proceedings against any member, and may intervene in or supersede county, individual trustee, or district disciplinary proceedings, whenever in its sole judgment and opinion, a disciplinary matter is not being handled in an expeditious manner, and may render a decision therein. In all cases in which the Association, rather than a member or aggrieved individual, appears to be the real party in interest, the Judicial Council may refer the complaint to the Board of Trustees for a determination as to whether probable cause for disciplinary action exists. If the Board of Trustees resolves this question in the affirmative, it shall so charge the respondent, and a representative of the Board shall thereupon be responsible for presenting the evidence in support of such charge at any hearing held thereon.

In all proceedings of the Judicial Council, the due process requirements of reasonable notice and a full and fair hearing shall be observed. No recommended disciplinary decision of an individual trustee or any district grievance committee shall become effective unless and until approved by the Judicial Council.

Section 3. It shall consider all appeals from the recommended decisions of individual trustees and District Grievance Committees.

In this case of appeals from the decisions of individual trustees, the Judicial Council may admit such oral or written evidence as in its judgment will best and most fairly present the facts, but all appeals from the recommended decisions of District Grievance Committees shall be considered on the record made before such committee. It shall be the duty of the Secretary to notify the parties with respect to its disposition of each case.

Section 4. The Judicial Council may hear appeals from the disciplinary orders of component societies. Provided, however, that such appeals shall be considered on the record made before the component societies.

Section 5. Efforts toward conciliation and compromise shall precede the hearing of all disciplinary cases, but the decision of the Judicial Council shall be final. A party aggrieved by the decision of the Judicial Council may seek an appeal to the Judicial Council of the American Medical Association in accordance with the jurisdiction, rules and regulations of that Association.

Section 6. Component societies are encouraged to create suitable disciplinary procedures which guarantee due process, and to dispose of all disciplinary problems which come to their attention. It is recognized, however, that it may not be feasible for some societies to do so, and the District Grievance Committees hereinafter created, are designed to meet the needs of county societies which are without a functioning grievance committee.

Section 7. The trustee of each district is hereby designated the chairman of his District Grievance Committee. The Judicial Council shall designate two additional trustees from districts adjoining that of the chairman, and the three trustees thus selected shall constitute the District Grievance Committee. All grievances which cannot be resolved by individual trustees, shall be referred to the local grievance committee or the district grievance committee for the district in which the respondent physician or county society resides.

Section 8. District Grievance Committees shall investigate every grievance coming to their attention, taking care that the physician complained of shall have ample opportunity to respond to the complaint. If, after careful investigation the complaint appears to be without merit, the committee shall so report to the Judicial Council, including sufficient facts in its report to enable Judicial Council to form its own conclusions.

If the District Grievance Committee's investigation indicates that the member may be a proper subject of disciplinary action, the committee shall, upon reasonable notice, hold a hearing at which the complainant and the respondent shall be entitled to be represented by counsel, to present the testimony of witnesses in his behalf, and to cross-examine witnesses against him. All testimony shall be under oath and shall be recorded by a competent reporter at the expense of the Association, but shall not be transcribed unless and until an appeal is taken as hereinafter provided.

When all of the testimony has been heard and all evidence received, the committee shall make written findings and recommendations which it shall transmit to the Judicial Council, furnishing copies thereof to the parties.

Section 9. Any party aggrieved by the findings or recommendations of the committee, may, within 30 days, appeal to the Judicial Council. Appeals shall be taken by filing with the Secretary-Treasurer a copy of the entire record made before the District Grievance Committee (including a transcript of the testimony, procured at the appellant's expense) together with a written statement of appeal pointing out in detail wherein the committee has erred, and directing the attention of the Judicial Council to those portions of the transcript upon which he relies, provided, however, that the Judicial Council may extend the time in which the transcript must be filed, upon request made within the initial thirty-day period.

Section 10. No report or opinion of the Judicial Council shall be considered the policy of the Association until approved by the House of Delegates. Any report or opinion of the Judicial Council submitted to the House of Delegates may be accepted or rejected or referred back to the Judicial Council but not modified by the House of Delegates.

CHAPTER VIII. COMMITTEES AND COMMISSIONS

Section 1. The Board of Trustees shall have authority from time to time to appoint, fix the duties of, and abolish such standing committees and commissions as it deems necessary or desirable to assist it in carrying on the Association's activities in the fields of business and scientific meetings, medical education and hospitals, legislation, medical services, communications and public service, and governmental medical services.

Section 2. The Executive Committee shall serve as the nominating committee for all standing committee and commission appointments, but the trustees may make additional nominations. When the Executive Committee sits as such nominating committee, the President-Elect shall serve as Chairman.

Section 3. The President, with the advice and consent of the Chairman of the Board of Trustees, may appoint temporary ad hoc committees to perform specified functions. All such committees shall expire at the end of the term of the President by whom appointed.

Section 4. No committee or commission shall have power or authority to fix or determine Associational policy or to commit the Association to any course of action, such powers being expressly reserved to the House of Delegates and the Board of Trustees.

CHAPTER IX. ASSESSMENTS AND EXPENDITURES

Section 1. The annual dues for membership in this Association shall be as follows: (1) Active Members, \$225; (except those physicians elected to KMA membership within six months of the completion of their residency, fellowship of fulfillment or government-obligated service shall pay \$112.50 their first full year of membership); (2) Life Members, no dues; (3) Associate Members, \$25; (4) In-Training Members, \$20; (5) Inactive Members, \$25; (6) Student Members, no dues; (7) Service Members, no dues; (8) Special Members, no dues. The dues during the first year for any active member shall be pro-rated on the basis of the date of his application. Dues fixed by these By-laws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which may institute centralized billing) the Secretary of each component society shall forward its assessments together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county to the Secretary-Treasurer of this Association as of the first day of January each year.

Section 2. Unless otherwise provided by the Board of Trustees pursuant to Section 1 hereof, any component society which fails to pay its assessments, or make the report as required, on or before the first day of April in each year, shall be held as suspended and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Section 3. All motions and resolutions appropriating money shall specify a definite amount or so much thereof as may be necessary for the purpose, and must have prior approval of the Board of Trustees before they can become effective. No motion or resolution, the adoption of which would require a substantial expenditure of funds, shall be considered by the House of Delegates unless the funds have been budgeted or are provided by the motion or resolution.

CHAPTER X. RULES OF CONDUCT

The principles set forth in the Principles of Ethics of the American Medical Association, together with the Constitution and Bylaws of the Association and all duly adopted resolutions of the House of Delegates, shall govern the conduct of members in their relation to each other and to the public.

CHAPTER XI. RULES OF ORDER

The deliberations of this Association shall be governed by parliamentary usage as contained in the latest edition of Sturgis' Standard Code of Parliamentary Procedure, unless otherwise determined by a vote of its respective bodies.

CHAPTER XII. COUNTY SOCIETIES

Section 1. Except as provided in Section 3 of this Chapter, all county medical societies in this State which have adopted principles of organization not in conflict with this Constitution and Bylaws shall, upon application to the House of Delegates, receive a charter from and become a component part of this Association.

The House of Delegates shall have authority to evoke the charter of any component society whose actions are in conflict with the letter or spirit of the Constitution and Bylaws.

Section 2. As rapidly as can be done after the adoption of this Constitution and Bylaws, a medical society shall be organized in every county in the state in which no component society exists, and charters shall be issued thereto.

Section 3. Only one component society shall be chartered in any county. Membership in the component society thus created shall entitle the members thereof to all the rights and benefits of membership in the Kentucky Medical Association.

Section 4. In sparsely settled sections two or more component societies may join for scientific programs, the election of officers, and such other matters as they may deem advisable. The component societies thus combined shall not lose any of their privileges or representation. The active members of each component society shall annually elect at least a Secretary and a Delegate for the transaction of its business with the Association.

Two or more adjacent component societies may also combine into one multi-county component society by adopting resolutions to that effect at special meetings called for that purpose on at least ten days' notice. Copies of the resolution, certified as to their adoption by the Secretary of each society, shall be forwarded to the Headquarters Office. If approved by the Board of Trustees, the multi-county society shall thereupon be issued a charter, the consolidating county societies shall cease to exist and the multi-county society shall become a component society of this Association; provided, however, that the active members residing in each county comprising the multi-county society shall be entitled to elect a delegate or delegates to the House of Delegates, as if each such county constituted a component society within the meaning of Section 11 of this Chapter; and provided, further, that multi-county societies may elect, at large, one alternate delegate for each delegate to which it is entitled under this section and such alternate may serve in the absence of the delegate for whom he is the designated alternate.

A multi-county component society may be disaggregated so that an individual county society may regain independent status when a majority of the members in that county indicate their desire to reorganize. At that time the members from the withdrawing county shall forward a petition containing the signatures of a majority of the members in that county to be validated by KMA. The withdrawing county shall further forward a resolution to the KMA Headquarters Office to be submitted to the House of Delegates at its next regular meeting, requesting recognition as a county society and issuance of a charter, in accord with Chapter XII, Section 1 of the KMA Bylaws. Once this charter is issued, the new county society shall become a recognized entity at the beginning of the following KMA dues year and those counties remaining with the original multi-county unit may continue to function under their pre-existing charter.

Section 5. Each component society shall be the sole judge of the qualifications of its own members. All members of component societies shall be members of the Kentucky Medical Association and shall be classified in accordance with Chapter I, Section 2 of these Bylaws, provided, however, that no physician who is under suspension or who has been expelled shall thereafter, without reinstatement by the Board of Trustees be eligible for membership in any component society. Any physician who desires to become a member of the Kentucky Medical Association shall first apply to the component society in the county in which he resides, for membership therein. Except as hereinafter provided in Sections 6 and/or 8 of this chapter, no physician shall be an active member of a component society in any county other than the county in which he resides.

Section 6. Any physician who may feel aggrieved by the action of the component society of the county in which he resides, in refusing him membership, shall have the right to appeal to the Board of Trustees, which, upon a majority vote, may permit him to apply for membership in a component society in a county which is adjacent to the county in which he resides.

Section 7. When a member in good standing in a component society moves to another county in the State, his name, upon request, shall be transferred without cost to the roster of the component society into whose jurisdiction he moves, if he is admitted to membership therein.

Section 8. A physician whose residence is closer to the headquarters of an adjacent component society than it is to the headquarters of the component society of the county in which he resides, may, with the consent of the component society within whose jurisdiction he resides, hold membership in said adjacent component society.

Section 9. Each component society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material conditions of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Upon reasonable notice and after a hearing, component societies may discipline their members by censure, fine, suspension or expulsion, for any breach of the Principles of Medical Ethics or any bylaw, rule or regulation lawfully adopted by such societies or this Association. At every hearing, the accused shall be entitled to be

represented by counsel and to cross-examine witnesses, and the society shall cause a stenographic record to be made of the entire proceedings. The stenographer's notes need not be transcribed unless and until requested by the respondent member.

Any physician aggrieved by the disciplinary action of a component society may, within ninety (90) days, appeal to the Judicial Council, whose decision shall be final. This appeal shall be in writing and shall point out in detail the errors committed by the county society. It shall be accompanied by a transcript of the proceedings before the county society, procured at appellant's expense, and the statement of appeal shall direct the attention of the Judicial Council to those portions of the transcript upon which he relies.

Any member who fails or refuses to comply with the lawful disciplinary orders of his component society shall, if such failure or refusal continues for more than thirty (30) days, be automatically suspended from membership, provided, however, that an appeal shall stay the suspension until a final decision is made by the Judicial Council.

The resignation of a member against whom disciplinary charges are pending or who is in default of the disciplinary judgment of his county society, a district grievance committee or the Board of Trustees shall not be accepted and no member who is suspended or expelled may be reinstated or readmitted unless and until he complies with all lawful orders of his component society and the Board of Trustees.

Section 10. Frequent meetings shall be encouraged and the most attractive programs arranged that are possible. Members shall be especially encouraged to do postgraduate and original research work, and to give the society the first benefit of such labors. Official positions and other references shall be unstintingly given to such members.

Section 11. At the time of the annual election of officers, each component society shall elect a delegate or delegates to represent it in the House of Delegates. The term of a delegate shall commence on the first day of the regular session of the House following his election, and shall end on the day before the first day of the next regular session, provided, however, that component societies may elect delegates for more than one term at any election. Each component society may elect one delegate for each 25 voting members in good standing, plus one delegate for one or more voting members in excess of multiples of 25, provided, however that each component society shall be entitled to at least one delegate regardless of the number of voting members it may have and that each multi-county society shall be entitled to the same number of delegates as its component societies would have had. The secretary of the society shall send a list of such delegates to the Secretary-Treasurer of this As-

sociation not later than 45 days before the next Annual Meeting. It shall be the obligation of a component society which elects delegates to serve more than one year, to provide the KMA Headquarters Office with a certified list of its delegates each year.

Section 12. The secretary of each component society shall keep a roster of its members and a list of nonaffiliated licensed physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall furnish an official report containing such information upon blanks supplied him for the purpose, to the Secretary-Treasurer of the Association, on the first day of January of each year or as soon thereafter as possible, and at the same time the dues accruing from the annual assessment are sent in. In keeping such roster the secretary shall note any change in the personnel of the profession by death or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

CHAPTER XIII. AMENDMENTS

Section 1. These bylaws may be amended at any session of the House of Delegates by a majority vote of the Delegates present at a meeting of that session, provided: (1) the amendment proposed is presented in writing to the Delegates thirty days prior to the meeting, or (2) the amendment is introduced in writing at a regular meeting of the House of Delegates during the session and considered at the following meeting of the session, the vote on said amendment having been postponed definitely for a period of at least one day.

Section 2. An amendment to or change in the bylaws may be proposed by a reference committee or by the Board of Trustees at the final meeting of a session of the House of Delegates, but, not having been postponed definitely for a period of one day, requires a two-thirds vote.

Section 3. An amendment to these bylaws may be proposed in writing by an individual Delegate at the final meeting of a session of the House of Delegates. If such an amendment is proposed, the proposal will be postponed definitely and studied by the appropriate reference committee at that time, reporting their recommendation back to the House of Delegates before the final meeting is adjourned. Such an amendment, having not been postponed definitely for a period of one day, requires a two-thirds vote.

1981-82 KMA COMMITTEES

Advisory Committee to the KMA Auxiliary

Frank R. Pitzer, M.D., Hopkinsville, Chairman
Ballard W. Cassady, M.D., Pikeville
Robert S. Howell, M.D., Louisville

Scientific Program Committee

James A. Baumgarten, M.D., Owensboro, Chairman
Dwight L. Blackburn, M.D., Berea
Peter C. Campbell, M.D., Louisville
Ballard W. Cassady, M.D., Pikeville
Max A. Crocker, M.D., Lexington
Hiram C. Polk, Jr., M.D., Louisville
George Thomas, M.D., Hopkinsville
Norm Angell, Louisville (student)
Karen J. Barnes, Lexington (student)

Scientific Exhibits Committee

Richard A. Kielar, M.D., Lexington, Chairman
James P. Moss, M.D., Louisville
Albert M. Potts, M.D., Louisville
John W. Ratliff, M.D., Lebanon
Sibu Saha, M.D., Lexington
Brett Coldiron, Lexington (student)

Awards Committee

S. Randolph Scheen, M.D., Louisville, Chairman
Delmas M. Clardy, M.D., Hopkinsville
Robert S. Howell, M.D., Louisville
David A. Hull, M.D., Lexington
Edward N. Maxwell, M.D., Louisville
Wyatt Norvell, M.D., New Castle
Paul J. Parks, M.D., Bowling Green

Continuing Medical Education Committee

Stuart Graves, Jr., M.D., Louisville, Chairman
James A. Baumgarten, M.D., Owensboro
Garry N. Binegar, M.D., Owensboro
Charles M. Brohm, M.D., Louisville
Noel D. Canlas, M.D., Henderson
John W. Cullen, M.D., Lexington
Stuart A. Fink, M.D., Louisville
Henry D. Garretson, M.D., Louisville
Allen E. Grimes, Jr., M.D., Lexington
John M. Johnstone, M.D., Berea
Frank R. Lemon, M.D., Lexington
Sally S. Mattingly, M.D., Lexington
James A. Parrott, M.D., Hopkinsville
Hiram C. Polk, M.D., Louisville
Robert W. Powell, M.D., Louisville
James E. Redmon, Jr., M.D., Louisville
J. David Richardson, M.D., Louisville
Joseph E. Roe, M.D., Madisonville
Nelson B. Rue, M.D., Bowling Green

Charles R. Sachatello, M.D., Lexington
Paul J. Sides, M.D., Lancaster
Bruce M. Stapleton, M.D., Ashland
William J. Temple, M.D., Covington
Wes Brewer, Lexington (student)
Chris Ford, Louisville (student)

Ex-Officio:

Gerald Swim, Louisville
KHA Representative

Cancer Committee

P. Raphael Caffrey, M.D., Lexington, Chairman
Ben M. Birkheard, M.D., Louisville
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Thanksgiving

Christmas is, properly, a more appropriate time to "give thanks" than Thanksgiving Day itself.

We would like to thank our friends and clients for another year of confidence and trust.

Merry Christmas

&

Happy New Year

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